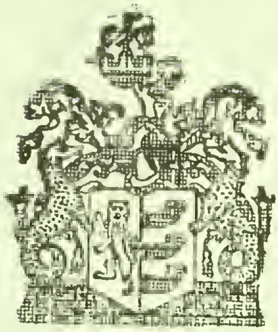

County Borough of Ipswich.

REPORT

of

THE MEDICAL OFFICER
OF HEALTH

and

SCHOOL MEDICAL OFFICER

for the Year 1937.

Acty 3 F M B

COUNTY BOROUGH OF IPSWICH.

Annual Report

of the

Medical Officer of Health and School Medical Officer

for 1937.

By A. M. N. PRINGLE,
M.B., C.M. Edin., D.P.H. CAMB.,
Medical Officer of Health,
School Medical Officer, Superintendent Isolation Hospital,
Medical Officer to the Ipswich Port Sanitary Authority,
Fellow of the Royal Sanitary Institute,
etc.

IPSWICH:
EAST ANGLIAN DAILY TIMES CO., LTD.
1938.

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County Borough of Ipswich.

PUBLIC HEALTH DEPARTMENT,
ELM STREET,
IPSWICH.

LADIES AND GENTLEMEN,

I have the honour to present my Annual Report for the year 1937.

This is my last Report to your Authority.

I include, in the form of an introduction, a resumé of the Reports of Dr. Elliston, showing the conditions of life in Ipswich in the last century. From this narrative it is possible to appreciate the enormous advances that have been made in the health services and conditions of the town during the present century.

I thank the members of the Public Health Committee for the unvarying support given me during my thirty-two years' service to the Corporation of Ipswich. I record with pride that the Committee has never once failed me in any matter of real importance to the health of the community. In particular, I tender the Committee my very special thanks for the unanimity of their support in the slum campaign now nearing its completion so far as the original five years' campaign is concerned.

I find it difficult to find words with which to thank adequately my most loyal and devoted staff for the unstinted services they have given to me, personally. It remains with me a very precious memory.

I have the honour to be,
Ladies and Gentlemen,
Your obedient Servant,
A. M. N. PRINGLE, M.B., C.M., D.P.H.,
Medical Officer of Health.

INDEX.

PAGE
OFFICERS OF THE PUBLIC HEALTH SERVICE 7
GENERAL PROVISION OF HEALTH SERVICES 9
CLINICS AND TREATMENT CENTRES 10

STATISTICS:—

General 11
Extracts from Vital Statistics 11
INTRODUCTION 12
POPULATION 39
HOUSING 41
SLUM CLEARANCE 42
OVERCROWDING 45
MARRIAGES 46

BIRTHS:—

General 47
Twin 49

DEATHS:—

Rates from all Causes 50
Rates over 70 years of age 53
Principal Causes over 70 years of age 54
Summary of Principal Causes at all Ages 55
Seasonal Mortalities 56
Quarterly Rates 57

Disease Groups:—

Seven Principal Zymotic Diseases 58
Scarlet Fever 60
Diphtheria 61
Measles 62
Whooping Cough 64
Zymotic Diarrhoea under 2 years 65
Influenza 65
Small Pox 66
Tuberculosis 66
Cancer 71
Respiratory System 76
Age and Sex distribution of Death Rates from Respiratory Diseases ... ... facing 76
Circulatory System 78
Violence 82

INDEX—*continued.*

DEATHS—continued. PAGE

Puerperal and Maternal Mortality .. 84

Infant Mortality :—

Decennial and Quinquennial Infant deaths .. 87
Age distribution and causes of Infant deaths .. facing 92
,, ,, of the Infant death rates under 1 year .. ,, 92
Still Births .. 95

INFECTIOUS DISEASES :—

Notifications and Rates .. 96
The Prevalence of Scarlet Fever .. 97
,, ,, Diphtheria .. 101
Enteric Fever .. 104

TUBERCULOSIS :—

Notifications .. 106
Notification Rates .. 107
Age and Sex Distribution .. 108
Principal Sites .. 108
Survival Table .. 109
Dispensary .. 109

Institutional Treatment :—

Ipswich Sanatorium .. 110
Surgical Cases .. 113
Advanced Cases .. 114
Dental work .. 114
Report by Clinical Tuberculosis Officer .. 115

MATERNITY AND CHILD WELFARE :—

Maternity Welfare :—

Ante and Post Natal Clinic .. 117
Ipswich Maternity Home .. 120
Midwives' Acts, 1902 & 1918 .. 120
Assistance Schemes .. 123
Dental Work .. 125

Child Welfare :—

Home Visits by Health Visitors .. 128
Infant Clinics .. 128
Artificial Light Clinic .. 131
Ophthalmia Neonatorum .. 132
Infant Life Protection .. 132
Assistance Schemes .. 132
Dental Work .. 133

INDEX—*continued.*

PAGE

IPSWICH ISOLATION HOSPITAL:—
- Admissions 134
- Accommodation 135
- Discharges 136
- Deaths in 137

SMALL-POX HOSPITAL 137

HEATHFIELDS MUNICIPAL HOSPITAL 138

AMBULANCE SERVICES 139

LABORATORIES 140

HEALTH EDUCATION 141

VACCINATION 142

VENEREAL DISEASES 142

WATER SUPPLY 146

SWIMMING BATHS:– 146

STREET CLEANSING AND COLLECTION AND DISPOSAL OF HOUSE REFUSE 149

REPORT OF CHIEF SANITARY INSPECTOR 151

SCHOOL MEDICAL OFFICER'S REPORT:—
- General 177
- Dental Surgeon's Report 185
- Statistical Tables 209

COUNTY BOROUGH OF IPSWICH.

Public Health Officers of the Authority.

December 31st, 1937.

MEDICAL (Whole Time).

Medical Officer of Health, School Medical Officer, Tuberculosis Officer and Superintendent, Ipswich Isolation Hospital.

A. M. N. PRINGLE, M.B., C.M. (Edin.), D.P.H. (Camb.).
(Retired 17th January, 1938).

J. W. HUNTER, M.B., CH.B. (Edin.), B.HY., D.P.H. (Durham), M.D. (Edin.)
(Appointed 5th May, 1937. Commenced duties as Medical Officer of Health, etc., 18th January, 1938).

Deputy Medical Officer of Health, etc., etc.

A. W. GAYE, B.A., M.B., B.CH., D.P.H. (Camb.), M.B., CH.B. (Manc.).

Assistant Medical Officer of Health, etc., etc.

DORIS E. P. JOLLY, M.B., B.S., M.R.C.S., L.R.C.P., D.P.H.

Clinical Tuberculosis Officer and Assistant School Medical Officer.

R. PHILPOTT, M.A., M.R.C.S., L.R.C.P.

Resident Medical Officer, Ipswich Isolation Hospital.

MARGARET SPENCER, M.R.C.S., L.R.C.P.
(Resigned 19.4.38).

Medical Superintendent, Ipswich Sanatorium.

W. F. SUTCLIFFE, M.R.C.S., L.R.C.P.

Assistant Medical Officer, Ipswich Sanatorium.

E. J. P. McDOWELL, L.M.S.S.A.

Resident Medical Officer, Heathfields Municipal Hospital.

DOROTHY E. EGLINGTON, M.R.C.S., L.R.C.P.

Part Time.

Medical Officer V.D. Clinic.

F. FOWLER WARD, B.A., M.B., B.CH.
(Died 22/5/38).

Medical Officer Heathfields Municipal Hospital and St. John's Home.

F. R. STANSFIELD, M.D., B.S., F.R.C.S., L.R.C.P.

District Medical Officer under Poor Law Acts.

W. F. FRYER, L.R.C.P., M.R.C.S.

Public Vaccinator.

H. W. FAREBROTHER, M.R.C.S., L.R.C.P., (London).

Consultants.

Orthopædics.

E. C. BELL JONES, M.B., B.S. (Melb.), F.R.C.S. (Eng.), M.CH.

Puerperal Fever.

F. R. STANSFIELD, M.D., B.S., F.R.C.S., L.R.C.P.

DENTAL SURGEONS (Whole Time).

Education and Public Health.

T. A. EDMONDSON, L.D.S., R.C.S. (Eng.)
A. W. T. WARD, L.D.S., R.C.S. (Eng.)
R. CUTHILL, L.D.S. (U. Liverpool)

OTHER OFFICERS (Whole Time).

Chief Sanitary Inspector.

H. L. BATY. 1, 2

District Sanitary Inspectors.

G. ELLISON. 1, 2.
W. L. BROWN. 1, 2.
T. S. ELLIS. 1, 2
L. J. MASSAM, 1, 2.
A. STUBBS. 1, 2.

Inspector under Shops Acts:

B. WHITE. 1.
(Resigned 15/1/38).

Health Visitors.

Miss F. PEPPER. 3, 4, 5.
,, F. M. CROSS. 3, 4, 5.
,, M. SANDBACH. 3.
,, L. COOKE. 3, 4, 5.
Miss M. SPRINGETT. 3, 4, 5.
Mrs. E. F. FENNA. 3, 4, 5.
(Resigned 18/12/37).
Miss F. ILETT. 3.
(Resigned 31/8/37).
,, D. MACINTOSH. 3, 4, 5
(Commenced 1/6/37).
Miss E. JONES. 3

Matron Isolation Hospital.

Miss E. LAW. 3.

Midwives, Maternity Home.

Miss G. KENNY. 3, 4.
,, M. N. FIDOE. 3, 4.
Miss A. T. McLAUGHLIN. 3, 4.
,, D. G. HEWITT. 3, 4.

Municipal Midwives.

*Miss P. P. ADAMS. 3, 4
* ,, E. J. DITCHAM. 4
* ,, H. M. MAUN. 3, 4.
,, M. P. OSBORN. 3, 4.
(Commenced 1/10/37).
*Miss C. E. CURRAN. 3, 4.
*Mrs. A. F. B. GIRLING. 4.
Miss H. M. MOORE. 3, 4
(Commenced 13/8/37).
* ,, E. A. ROBERTS. 3, 4
Mrs. E. J. TALBOT. 4.
(Commenced 11/10/37).

Chief Clerk.

H. J. WALTON. 1.

Part Time.

Public Analyst

W. LINCOLNE SUTTON, F.I.C.

Veterinary Surgeon

W. J. BROWNING, M.R.C.V.S.

Vaccination Officers.

Ipswich (Eastern) Sub-District, S. JAMES
Ipswich (Western) Sub-District, H. J. WALTON

Matron, Maternity Home.

Miss M. BLYTH, 3, 4, 5

1.—Sanitary Inspectors Certificate R.S. Institute.
2.—Meat Inspectors Certificate.
3. Trained Nurse.
4. Certificate of C.M.B.
5. Health Visitors Certificate R.S.I.
* Commenced 1/8/37

GENERAL PROVISION OF HEALTH SERVICES FOR THE COUNTY BOROUGH OF IPSWICH.

HOSPITAL PROVISION.

1. Fever.

Ipswich Isolation Hospital, Foxhall Road, Ipswich—110 beds, including cubicle block of 24 beds for suspects or mixed infections—accommodation for all forms of Infectious Diseases.

2. Small Pox.

Ipswich Small Pox Hospital, Foxhall Heath, near Ipswich—24 beds.

3. Tuberculosis.

Ipswich Sanatorium, Foxhall, near Ipswich—120 beds, early cases.

Ipswich Isolation Hospital :—
Advanced Tuberculosis—30 beds.
Surgical Tuberculosis—24 beds.

East Suffolk and Ipswich Hospital (Voluntary Hospital)—beds as required for operative treatment.

4. Maternity.

Ipswich Maternity Home, Wingfield Street, Ipswich—15 bedrooms (18 beds) and 2 Labour Rooms.

5. Municipal Hospital.

Heathfields Municipal Hospital—311 beds.

AMBULANCE FACILITIES.

(a) Infectious Cases.

A Motor Ambulance has been provided by the Council and Motor Vans for the removal of infected bedding.

(b) Non-Infectious and Accident Cases.

The Council have no Ambulances for use in these connections, but assists the local Branch of St. John Ambulance by an annual grant.

CLINICS AND TREATMENT CENTRES.

(As existing at 31st December, 1937.)

1. INFANT WELFARE CENTRES.

(a) Public Health Department, Elm Street.

Every afternoon (except Saturday), 2.30 p.m.—5.0 p.m.
Medical Officer in attendance Monday and Wednesday.

(b) Branch Clinic, Clapgate Lane.

Every Tuesday, Wednesday and Thursday afternoon, 2.30 p.m.—5 p.m.
Every Monday and Friday afternoon, 4 p.m.—5 p.m.
Medical Officer in attendance Tuesday and Thursday.

2. ANTE-NATAL AND POST-NATAL CLINICS.

(a) Public Health Department, Elm Street.

Every Tuesday, Thursday and Friday, 10 a.m.—1 p.m.

(b) Branch Clinic, Clapgate Lane.

Every Monday and Wednesday, 10 a.m.—1 p.m.

3. ARTIFICIAL LIGHT CLINIC (Elm Street only).

Every afternoon, except Wednesday and Saturday, at 2.30 p.m.

4. SCHOOL CLINICS (Elm Street and Clapgate Lane).

Every morning. Special sessions in the afternoon.

5. TREATMENT CLINICS (Elm Street and Clapgate Lane).

Open every morning. Every afternoon except Saturday.

6. DENTAL CLINICS (Elm Street and Clapgate Lane).

Children attend by appointment.
Tuberculosis patients, expectant mothers and children under 5 years by special appointment.

7. TUBERCULOSIS DISPENSARY (Elm Street only).

New cases each Tuesday and re-examinations each Friday at 10 a.m.
Children every Friday at 2.30 p.m.
Treatment cases each Thursday at 2.30 p.m.

8. TREATMENT CENTRE (VENEREAL DISEASES).

Clinics are held at the East Suffolk and Ipswich Hospital (Voluntary Hospital) as under :—

Adults—Males, Wednesday at 5.30 p.m., Friday at 1 p.m.
Females, Wednesday at 4.0 p.m., Friday at 2.30 p.m
Children, Thursday at 11 a.m.

STATISTICS AND SOCIAL CONDITIONS.

Land Area of the Borough in acres	8,692
Population, Census 1921	79,371
Population, Census 1931	87,557
No. of Inhabited Houses (1931)	21,923
No. of Inhabited Houses (at 31/3/1937) according to Rate Books	27,636
No. of Families or Separate Occupiers (1931)	22,758
Rateable Value, March, 1937	£601,748
Sum represented by a Penny Rate, 1937	£2,300

EXTRACTS FROM VITAL STATISTICS OF THE YEAR 1937.

	Total.	M	F.	
				Birth-Rate
BIRTHS—Legitimate ...	1,322	696	626	14.8
„ Illegitimate ...	71	40	31	
				Rate per 1,000 Total Births.
STILLBIRTHS	43	22	21	30
				Death Rate.
DEATHS	1,018	483	535	10.84

Percentage of Total Deaths occurring in Public Institutions ...		40.4
Number of women dying in, or in consequence of, child-birth ...	From Sepsis ...	1
	From other causes ...	6
Death-rate of Infants under 1 year of age per 1,000 live Births:— Legitimate 33, Illegitimate 28	Total	33
Deaths from Measles (all ages)		1
Deaths from Whooping Cough (all ages)		—
Deaths from Diarrhœa (under 2 years of age)		3

INTRODUCTION.

In this my last Annual Report to your Authority, I may be forgiven if I indulge in retrospection and recall the conditions of life in Ipswich in the nineteenth century as compared with those obtaining at the present day.

As it happens, the health story of Ipswich can be pieced together from the year 1870 to the present time from the information as to the health of the people contained in the Annual Reports of my predecessor, Dr. G. S. Elliston, and myself.

Dr. Elliston took up his duties as Medical Officer of Health in 1874, and his first Report deals with the sanitary condition of the Borough as it was in the middle of that year.

I quote the following extracts from this portion of the Report :—

"I have, during the last 10 months, been engaged upon a preliminary inspection of all the occupied places within the boundaries of the Borough, paying especial attention to the crowded courts and alleys in the poorer districts of the town, to nearly all of which I have made a house-to-house visitation."

"There are many hundreds of houses in Ipswich, which, though not sufficiently bad to certify unfit for human habitation, are still very unsuitable as residences for people with families, and must exert a very injurious influence on the health of the occupants. It appears to me, from what I have seen, that some 20 or 30 years ago, a mania must have existed in the town for running up small cottages, called 'single houses,' these are generally built in a row or back to back, on an odd scrap of ground, either at the corner or behind a back street. They generally consist of two rooms, and have no back door or window, so that it is impossible to obtain 'through ventilation,' which is so essential for properly removing vitiated air from an occupied room, and constantly renewing it with fresh. It is not at all an uncommon thing to find a man and his wife with from five to eight children occupying this class of house, which does not measure on an average 2,000 cubic feet, and many instances of overcrowding have come under my notice."

"Another structural defect in most of the cottages is the small size of their windows, and it is astonishing to notice how few of the sashes are made to open at the top; I have also many times come across occupied rooms where there is no provision for opening the windows at all. During my preliminary survey of the district, about 439 of these houses, without any 'through ventilation,' have come under my notice."

"The sanitary condition of many of the courts and yards all over the town are in a very dirty and neglected state, the drainage is defective, and as some are only partially, or not paved at all, the broken gutters allow the house and refuse drainage to soak into the surrounding ground. The closet accommodation in these densely-populated districts is also very defective, and in numbers of cases quite insufficient, it being no uncommon thing to find 15 to 30 persons attending one place, and there have been cases before the Nuisances Removal Committee during the year, where the numbers have even reached to 40 and 45."

"These outdoor closets are all constructed on the old-fashioned principle of having the midden or ash-pit underneath and open at the back; they are too large and too deep, and are difficult to thoroughly empty; nine out of ten of the middens throughout the town, whether on the high ground or low, are full of foul liquid sewage, this is partly owing to their open construction, without any roof to keep out the rainwater, and the neglect on the part of the owners to have the bottoms made water-tight by securely cementing them with Portland cement. Another cause of their wetness is that the farmer's men, when sent to empty them, cart away only the solid and leave the liquid behind to accumulate year after year, forming foul open cesspools in every direction. It is now an admitted fact that where rain and drainage water is allowed to get into these middens, the water, by dissolving the impurities contained in the human excrement and animal and vegetable refuse, causes the most noxious gases to be given off, and the foul emanations from them are the great cause of Enteric Fever and Diarrhœa. Besides poisoning the air, these wet and leaky midden pits also pollute the drinking wells in those localities where the inhabitants are unfortunate enough not to have the town water laid on. The subsoil of the town is every year becoming more saturated with sewage, and the number of impure drinking wells is constantly increasing, numbers may be found in use in closely-populated districts like Handford Road, Bramford Road, Globe Lane, Fitzroy Street, Tanners' Lane, Curriers' Lane, Woodbridge Road, and Stoke."

"In most large towns, where the refuse of the population lies festering in ashpits and middens month after month, for the want of a systematic plan of frequent removal, the deaths from Zymotic diseases are generally in excess; this is certainly the case in Ipswich, as will be seen by referring to table 7 in the appendix, where I have tabulated the deaths from the seven principal preventable diseases, quarter by quarter for the last five years; by it you will see that fever is present all the year round, and that the high mortality from Diarrhœa every September quarter comes round with fearful regularity. In the absence of any Public Baths or Wash-houses the inhabitants of the courts and back streets have to fall back upon the small wash-house provided in the yard, when it is in a sufficient state of repair to be used, for all washing purposes. I regret to say that in court after court I have visited I either found no wash-house at all, or else it had fallen into such a disgraceful state of dilapidation that it was rendered practically useless for the purpose for which it was originally intended, and in many cases it had been turned into a receptacle for rubbish, a fowl-house, or even a pigstye and stable. The landlord's excuse for not providing these places or keeping them in a proper state of repair is that the poor are naturally dirty in their habits and have a great dislike to water and washing. This is not my experience of them, as, with the exception of a few bad managers who would be dirty and live in filth in whatever place you provided for them, the inhabitants of Ipswich, with a little encouragement, would become as a rule a very cleanly people. I have constantly noticed the struggle of some people to keep clean in spite of the depressing influences by which they are surrounded, and have heard them loud in their complaints at having their drains blocked, no tap-water or house to wash in.''

''The great obstructors to sanitary improvements are the owners of small house property, who never think, in many cases, of laying out a shilling in repairs, and after squeezing all they can out of their tenants, either eject them, lower the rents, or do anything rather than cleanse the premises and make them habitable; the consequence of all this is that the people fall into a state of neglect and dirt, and disease is sure to follow. During the last ten months many of the worst localities have been before the Nuisances Removal Committee, and special reports were ordered by them to be made on the sanitary state of the Woodbridge Road, Stoke and Handford Road. Many places in the upper part of the Woodbridge Road were in a most primitive state as far as drainage and closet accommodation were concerned—midden pits were overflowing with sewage, drains were blocked and the drainage diverted into gardens, where it was allowed to stagnate in pools till required by the gardener. Very great improvements have, however, been carried out in this neighbourhood, nearly all the owners of property having thoroughly carried out the orders of the Committee. The same cannot be said of Stoke, many parts of which still remain in a bad state, more particularly the cottages and premises situated between Bell Lane, Stoke Street, and Boar's Head Lane; a large proportion of the inhabitants are supplied with pump-water for drinking purposes, and many of the back yards have a dirty and neglected appearance, with tumble-down and dilapidated outhouses, and rubbish and brickbats lying about on patches of ground that might be cultivated.''

''Overcrowding in small and ill-ventilated houses has often come under my notice, but owing to the people, in the majority of cases, being members of one family, proceedings have not been taken in more than two cases. It is a common practice in many parts of Ipswich to let off single rooms in old and dilapidated houses into weekly tenements, by so doing the proprietors evade coming under the 'Common Lodging House Act,' and are not compelled to observe the rules of cleanliness and cubical space which that Act requires. Families live, sleep, cook and wash in these rooms, and are sometimes entirely without a water supply, as in the case of Mount Pleasant, Shirehall Yard—a place I have already condemned as unfit for human habitation. These apartments are also let furnished, at 2s. a week and upwards. One in Mount Pleasant I found occupied by a man and his wife, a grown-up daughter, and three children; the furniture was very scanty, and in the corner of the room was a large four-poster bedstead, without any sacking or bedding; inside the bedstead and on the floor the whole family slept huddled together for warmth; this was necessary as it was in the month of November, and half the casement in the room was missing. In another room at 27, Boar's Head Lane, Stoke, I found a family of five living without a scrap of furniture or bedding at all, and in more than one small house, with large families, I have noticed an entire absence of furniture in the bedroom upstairs. Another objectionable place of this kind is Soane Court, St. Margaret's, which consists of six houses let out into thirteen tenements; two of the rooms are dark and damp, the opposite house being only 3 feet 10 inches from the door and window; the end room is under six feet in height, with a window which does not open; another ground-floor room was occupied by a family of four, and as the 694 cubic feet which it contained only gave 173 to each, the Inspector compelled the inmates to leave. Four of these tenements were condemned as unfit for habitation, but as some of the upper rooms were not so bad, there was some difficulty in recommending the Sanitary Authority to close the whole place. A gross case of overcrowding was reported to me a few weeks ago, by the Inspector, in a small court leading from Dove Lane, St. Helen's. In a cottage containing two rooms and measuring altogether only 2,106 cubic feet, lived, at the time of my visit, a man and his wife, two daughters aged 16 and 13, two children aged 7 and 5, two lodgers, one a sailor aged 16, and another man."

SEWERAGE AND REFUSE.

"The sewers in Ipswich are defective, badly constructed, and entirely without any system of ventilation; in some cases they are not sufficiently deep to drain the basement of the houses, or carry off the house drainage, and are so placed as to be only of use to the immediate district through which they run. I understand from Mr. Buckham, the Surveyor, that at least half the Borough is without any proper means of drainage, and although the present main sewers would be sufficient for a time, to remove the sewage from their locality in connection with a new system or intercepting sewer, still, at no very distant date, they must all be reconstructed. The consequence of there being so few sewers, many parts of the town are honeycombed with large cesspools; this I noticed more particularly in St. Matthew's Street and Tavern Street; in these main thoroughfares, it is not at all an uncommon thing to find a large cesspool in the cellar of the house, capable of holding from 20 to 30 years amount of sewage, and some of them have not been emptied in that time. It is not a pleasant thing to know that 20 years' refuse is carefully stored up in the basement of a dwelling house in the heart of the town. One case that came under my notice in Tavern Street was that of a large establishment where the sewage had so increased that it had to be turned into a live well—this answered very well for a time—but the deposition of sewage at the bottom of the well has blocked it up, and it now has to be pumped up into the gutter of the street once a fortnight, and runs along right and left until it comes to an opening into a sewer, and so poisons the air from the White Horse corner to the Cornhill. This, I have every reason to believe, is not a single example The open gutters in St. George's Street or Globe Lane receive all the drainage from the houses in the adjacent courts and side streets, and are at times in a very foul state; the same may be seen in Great Whip Street, Stoke. In both of these streets I have noticed the gutter stained black from sewage, from end to end, even after they have been swept and cleansed by the scavengers. My attention has lately been drawn to the state of a ditch at the bottom of the Bramford Road, running in front of Prospect Road, it receives all the drainage from the lower part of the Bramford Road, Victoria Street, Prospect Road, and a number of new streets leading into Victoria Street, it is only 30 feet from the fronts of the houses in Prospect Road, and is a foul open sewer from end to end; the ditch has been frequently emptied and cleansed. and this has made the bottom in some places lower than the outfall at the Seven Arches Bridge, so that the sewage stagnates and gives off foul emanations, most injurious to the health of the neighbourhood. This ditch is now being cleansed and disinfected by order of the Nuisances Removal Committee, but the nuisance must soon recur again, as nothing but a properly constructed covered drain or sewer can permanently remedy it."

RIVER GIPPING OR HANDFORD MILL TAIL STREAM.

"I must now call your attention to the shocking state which this open sewer is in from Handford Mill to the outfall near Stoke Bridge. I have several times inspected it during the present summer, but I have not reported upon it at any length to the Nuisances Removal Committee. as I considered it too gigantic a nuisance for them to deal with, and more a question for you as the Sanitary Authority; and further, I did not consider myself justified in suggesting proceedings to be taken against the residents on the banks for pouring their filth and refuse into the stream, when three of the main sewers of the town empty their contents in higher up. There have been more complaints about this stream this summer than at any previous season, owing, no doubt, to the increasing amount of sewage discharged into it, and the small amount of water available to flush it during the long drought. This want of water has caused the sewage deposition and oozy slime on the banks and bed of the river to become exposed during the greater part of the day, and to distribute amongst the thickly populated districts on its left bank the most offensive smells that stagnant sewage is capable of giving off."

"The sewers discharging near the Oil Mills bring down a large quantity of sewage from the Hospital, Cavalry Barracks, and Berners Street districts. Lower down are two slaughter houses, from which I have seen blood and slaughter-house refuse flowing into the stream. Next to these are River Yard and Little Gipping Street, consisting of about 25 houses: all these drain into the river, and the closets and midden pits are all built on the edge of the bank; they are dilapidated, and their contents overflow into the river. Large holes are made in some of the soil bins for the purpose of letting in the water when it is extra high and washing them out. I also noticed pigstyes built on the edge and draining in—at this point the stream begins to get very foul, and lower down nine cottages in Frost's Court and the houses in Tanner's Lane, all help to contribute to the nuisance. At Friars' Bridge another slaughter-house drains in, and below the Princes Street Bridge the Princes Street sewer discharges its contents, which appear to me to have lately increased in volume and thickness. Next comes a long row of houses in Portman Street, Cardinal Street and Crown Street on one side, and Cecilia Street and part of Commercial Road on the other, it is here that the river is at its worst, the sewage having deposited to the depth of four clear feet, and when the water is nearly out, as it frequently is, the stench is unbearable and very injurious to the health of the surrounding district. I regret I am unable to accompany this Report with statistics of the mortality and disease of the people dwelling on the banks of this open sewer, as I have been unable to ascertain the population, but I suspect the figures would be rather startling. The banks on both sides are riddled with drains of various sizes, some of them draining whole streets, and in my opinion the only thing that will relieve this great and growing nuisance is an intercepting sewer, which would be a grand improvement if it were the means of entirely doing away with this part of the river Gipping."

ST. PETER'S DOCK.

"A large portion of the sewage brought down by the river Gipping and from the outfall in the New Cut has become deposited in this Bight; the accumulation appears to have increased very much of late, as each time the tide recedes a large bank of foul sewage mud becomes exposed to the atmosphere. I need hardly say, as this place is well known to all the inhabitants of Ipswich, that the noxious gases given off by this large open cesspool at low tide is most dangerous to the health of passers-by and those engaged in business in its vicinity. There are not many dwellings in the immediate neighbourhood of this dock, and therefore, bad as it is, I must consider the state of the River Gipping far worse."

REMOVAL OF SEWAGE AND REFUSE.

"After visiting some thousands of houses in every part of the Borough, I have come to the conclusion that two separate systems are necessary for Ipswich, viz., a thorough system of sewerage which will drain every district in the town, and carry the sewage to a distance, either on to the land or into the river, and so out to sea; and a uniform plan of outdoor closets for the small houses and cottages in back streets, courts and yards, so constructed that the refuse can be kept dry and easily removed at frequent intervals. I am inclined to think that an entire water carriage system for Ipswich would not be suitable, as even if there were no difficulty in connecting every cottage to a sewer by a water closet, there would still be the dust and ashes to dispose of; and situated as the town is in the heart of an agricultural district, the proper place for the solid refuse must be the land."

WATER SUPPLY.

"You have so recently had a full Report upon this subject from the Paving and Lighting Committee, that little more remains to be said.

The analysis of the water proves that the town enjoys a pure water supply, considerably above the average, and this is a cause for much congratulation to those who are interested in the public health. In the course of my inspections I have come across many hundreds of houses without a proper water supply, and some without any at all, but I did not think there were as many as 2,000 houses in the Borough not connected with the Water Company's mains; this is the number stated in the Report, and is a very serious matter to contemplate. All health authorities agree that where there is a good water supply in a town all houses deriving their supply from doubtful sources should be compelled to become connected with it."

"In consequence of sickness among the inmates the water supply of two or three large houses in the town have been investigated. In one a large tank in which the water was stored up was found in a foul state and in another it was discovered that the water supply had been for upwards of 30 years derived from an old water head under the foot path in Bolton Lane; the water here was no doubt formerly very pure but the original spring having long since been diverted, the analysis at its source proved it to be only surface land drainage, full of impurities. On tracing the pipe from the reservoir under the road, it was found that the lead pipe which conveyed the water from the main to the cistern at the top of the house was laid through the cenrre of a large cesspool into which emptied two closets; the action of the sewage on the lead pipe during a period of 30 years had caused several perforations to take place and in some places it had become so thin that when touched it broke in pieces. The result of this was that the water which supplied the cistern of this house, in addition to being impure at its source, often, when the pressure was low, became mixed with the sewage in the cesspool.

The cause of the investigation was that one of the servants had recently been sent home ill and died a few days after from Typhoid Fever, and it was quite sufficient to account for a low state of health that had been noticed among the inmates."

The following extracts from Dr. Elliston's Report for 1877 record the disastrous effects of the repeated epidemics of Summer Diarrhœa which were the normal experience of the town at that time, and the fact that in the September Quarter of 1877 the Local Authority began the systematic scavenging of the whole town with a staff of eight men who removed 878 tons of refuse from the town during the quarter.

"This was increased later in the year to 12 men and six horses.

"On referring to my previous Quarterly Reports for September, I find I have been regularly in the habit of drawing the attention of the Sanitary Authority to the fatal recurrence of Summer Diarrhœa in the Borough. In many of these Reports I have attributed the prevalence of the disease to defective drainage, and large accumulations of excremental filth and refuse in the thickly-populated parts of the town. Down to the year 1875 the collection of refuse was almost entirely in the hands of the farmers, and as they were unable to send into the town during the summer months, the filth and refuse accumulated in festering heaps and pools during the most dangerous season of the year. It was for this reason that I strongly urged the Local Authority to take the systematic scavenging of the whole town into their own hands, and during the quarter ending September 30th, 1876, a staff of eight men were employed in removing 878 tons of refuse from the town. Although this proved a relief to the town, the staff of scavengers were found to be quite insufficient, and they were increased to twelve, which enabled the Refuse Removal Committee to regularly employ a gang in the St. Clement's District. The three gangs, with twelve men and six horses, have now been at work twelve months, and I have been looking forward with some interest to see if any beneficial result has taken place in those diseases which have been appropriately termed 'Filth Diseases,' viz.: Diarrhœa and Typhoid Fever. I find by the Foreman's accounts, that during the quarter ending September 30th, 1877, 1,295 tons of refuse were removed from the town, against 878 in the corresponding quarter of last year; and if the following deaths from Diarrhœa and Fever for the September quarters in the past seven years be compared, it will be seen that there has been a considerable reduction this year."

"These results are, I think, sufficiently encouraging to continue and extend the work, as from what I have seen during my inspections this quarter there are still large accumulations of refuse that require more frequent removal. The last new gang has been principally working in St. Clement's, and as much as 325 tons of refuse were removed from that district last quarter. In proportion to its size, this amount is larger than in the other districts, and I must specially notice that, with the exception of an aged person who died of Diarrhœa in the Asylum, not a single death was registered from that disease in St. Clement's during the quarter. I venture to hope that the Sanitary Authority will not only continue to retain the removal of refuse in their own hands, but add to their present staff a gang of four men, who will be able entirely to attend to the urgent cases reported to the department by the Inspector of Nuisances."

"It will be seen that year after year I became more convinced of the excrementitious origin of the disease, and the further experience gained during the epidemic of 1880 confirms that opinion. During the first week in last September when the weather was extremely hot and close, I inspected nearly all the streets in which fatal cases of Diarrhœa had up to that time occurred, and in the majority of houses where deaths had recently taken place I found the air in the back rooms and yards close and foul from the emanations arising from the soil bins and house drains, many of the latter being untrapped, owing to the top of the bell trap being either missing, broken, or temporarily removed. In Waterloo Street, a small narrow street, in which three deaths from Diarrhœa had been registered the previous week, I made a house-to-house inspection, and found several persons of all ages, but principally children, suffering more or less from attacks of Diarrhœa. Nearly all the soil bins were in a foul state, some were full of refuse, but many had been partially emptied, leaving behind a quantity of liquid filth, which under the influence of the high atmospheric temperature was rapidly undergoing putrefactive decomposition. I was much struck with this tainted state of the atmosphere in some portions of the town during the first part of September; it was especially noticeable in St. Matthew's sub-registration district, and in all narrow streets where the yard space at the back is close and confined. There are some back streets in Ipswich in which there is always an unpleasant closeness in hot summer weather, but in no previous summer had I noticed the air in the densely populated parts of the town so charged with the products of organic decomposition as on the 3rd and 4th of last September; and it seemed impossible for the milk and food stored up in the back living rooms of cottages to escape becoming tainted."

"The insufficiency of yard space in rear of dwelling houses has frequently engaged the attention of the Sanitary Authority; I have often noticed an intimate relation between it and infantile mortality, especially where the small yards are enclosed with high walls or adjacent buildings. To secure a free circulation of air about houses the bye-laws of the borough prohibit the erection of any new dwelling house wihout an open space exclusively belonging to it, to the extent at least of 150 square feet; this minimum amount of space gives a very small yard, and should be only sanctioned in rare cases where, from the nature of the site, sacrifice of property would otherwise have to be made. There can be little doubt that 150 square feet of yard space is not sufficient for health, yet since the builders have found out that the bye-laws fix this as a minimum amount, they frequently submit plans for new houses with only this small space."

To many people this extract from Elliston's 1874 Report will appeal as a very pertinent illustration of the slowness with which some ideas make progress.

He describes in unflattering terms the condition of the 33 Private Slaughter-houses in the Borough, and concludes with this paragraph.

"The question now arises whether the time has not arrived when a public abattoir could be established with great benefit to the public. A place of this kind erected near the Cattle Market, well paved, drained and supplied with water would not only become a commercial success, but would be of very great advantage to the public, as they would be enabled to inspect their own meat, and there would not be the same faciilty for introducing diseased cattle into the town as now exists with the private slaughter-houses scattered all over the borough. Whether on the ground of public health or on that of economy there can be no question of the superiority of public abattoirs over private slaughter-houses—a superiority acknowledged and acted upon in Paris as long ago as 1810.' "

The question asked by Elliston 63 years ago remains unanswered to-day, but it is only fair to say that the plans have been prepared for a public abattoir in Ipswich, but are held up awaiting the approval of the Ministry of Health, which appears to be very difficult to get.

Extract from Annual Report, 1877 :—

"I must, however, remind the Sanitary Authority that the Adulteration of Food Act is a dead letter as far as it concerns Ipswich. In the absence of a Public Analyst there is no provision for examining the purity of articles of diet such as milk, bread, butter, tea, etc., in a systematic way."

A Public Analyst appears to have been appointed in 1879 because it is reported that in that year five samples of water were analysed. In 1880 26 samples of water were analysed, and in 1881 18 samples of water, 3 of butter, and 3 of milk.

In these early Reports of Elliston's there is no mention of a Public Health Committee. There is, however, constant mention of the Nuisances Removal Committee and of its officer, the Inspector of Nuisances. These nuisances were defined by the Public Health Act of 1875, which was forced through an unwilling Parliament by Benjamin Disraeli. A favourite jibe of his political opponents at this time was to describe this great charter of the Pubilc Health as a "policy of sewage."

This Act laid the foundations of the Public Health Services of the present day, and is an enduring monument to Disraeli's vision and his understanding of the prime importance of the health of the people.

The keynote to the health activities of this period was *environment.* The foul and abominable conditions under which vast numbers of people were living were so obvious as to concentrate attention upon them to the exclusion of all other considerations.

All conditions of health were related to obvious nuisances, chiefly smells and glaring conditions of filth, and thus arose the belief that the removal of insanitary conditions would result in due course in the disappearance of epidemics and all kinds of depressed health conditions.

Thus we find Elliston constantly protesting against privy middens, lack of sewers and drains, unpaved streets and yards, etc., all filth conditions fraught with danger to the health of the people. He had to continue his protests against privy middens for 20 years before their abolition was even begun, but he saw the disappearance of nearly the whole of them before his period of office ended. But between 1874 and 1906, 1,634 infants under two years of age died from Summer Diarrhœa. These were the price of ignorance.

When Elliston took office the water supply of the town was in the hands of a private company, and many houses were supplied from polluted wells. Some houses had no water laid on at all. In 1892 the town acquired the Waterworks. Long prior to this most of the polluted wells had been closed and practically every house in the town had the town's supply available. Elliston therefore had the satisfaction of knowing that the basic need of a community, viz., a pure and plentiful water supply, had been provided during his time

Elliston's official life was spent in struggling to improve environmental conditions, and in the course of his 32 years of office as Medical Officer of Health he saw great advances in this direction. The abolition of privies has already been mentioned as next to a pure water supply, the outstanding achievement of this time. This could not have been achieved if an adequate system of sewers and drains had not been available. The whole of this in turn depended on the construction of the main sewer in 1881. This paved the way to the substitution of the privies by the water carriage system.

A great deal of sound sanitary work was carried out in the way of paving of streets and yards.

A vast amount of reconditioning of premises was carried out and, generally speaking, great improvements in the environmental condition of the people were accomplished. A good many grossly insanitary houses were closed.

We have discussed the conditions of life prevailing in Ipswich in the latter part of the nineteenth century, and have seen that the Health Authorities of those days concentrated their energies on the improvement of the surroundings of the people.

The magnitude of the evils of insanitation and the ignorance of the real causes of disease necessarily credited sound sanitation with influences over diseases, especially the infections, which subsequent experience and additional knowledge have shown to be exaggerated. I do not wish to be misunderstood. The highest sanitary environment obtainable is a necessity of the health of the people, but it is not going to abolish epidemics of Smallpox or Scarlet Fever or Measles or Whooping Cough or Influenza, to mention only a few. It does, however, improve greatly the chances of recovery. For example, Pneumonia and Bronchitis after Measles and Whooping Cough are much more likely to supervene and far more likely to be fatal in insanitary than in sanitary homes.

One of the most interesting features in Dr. Elliston's series of Reports was his annual commentary upon the prevalence and fatality of the principal infectious diseases. This is a mine of information to the epidemiologist studying the history of these diseases in the light of modern knowledge, and his special reports dealing with special epidemic conditions as they arose are very valuable contributions indeed to the elucidation of the real nature of epidemics.

I cannot do better than quote from Elliston's annual reports year by year. The sentences in inverted commas are Elliston's own.

1874.

Whooping Cough and Measles.—"These two diseases have been present in an epidemic form during the last six months, 92 children having fallen victims to them."

"I believe the epidemic to have been spread by means of the national and infant schools."

Diarrhœa.—"This disease is *always* fatally prevalent in Ipswich every autumn."

Enteric Fever.—Elliston wrote a special report on this disease in this year, from which I quote the following.

"This disease . . . *never having in fact been absent* a single month during the last 12 months." Compare this statement with the experience of the present day.

"Enteric is an endemic disease occurring chiefly in the autumn. It attacks both rich and poor and is generated by putrifying animal matter.

"The principal causes of the disease are—air poisoned by the foul emanations from drains and sewers when the sewage stagnates and undergoes fermentation, and drinking water contaminated by decomposing sewage percolating into the wells, polluted milk has also been the means of spreading an epidemic."

Thus Elliston knew that sewage-polluted water caused Typhoid Fever. He had never heard of the existence of the Typhoid group of germs in human excreta, and ascribed the disease to the influence of the decomposition of the sewage.

"Enteric fever is a disease that . . . ought not to exist in a healthy and well regulated district, and each case points to some grave sanitary defect. With the exception of the village of Whitton, where the fever was epidemic last autumn, the cases are *equally distributed* over the *whole borough*, showing the great want of a system of drainage and refuse removal in every part of the town."

1875.

Scarlet Fever.—"This disease has been present in an epidemic form during the last 12 months."

"It commenced in Ipswich towards the end of June, 1874. It showed signs of increasing during October, as many as 58 fresh cases being reported to me in that month."

Diphtheria.—"This disease has much increased during the last two years."

1877.

Whooping Cough and Measles.—"The fatality from these two infantile diseases was very great in 1877, 76 deaths being returned from them."

Scarlet Fever.—"This disease has for three years been more or less prevalent in various parts of the town: 34 deaths were returned from it in 1875, 22 in 1876 and 18 during the year 1877. The first half of the year just ended was nearly free from it, but in July it re-appeared and spread with great rapidity."

"The outbreak during the last quarter of the year has been one of the most extensive for many years; but the disease has been of a singularly mild type."

"It is to be hoped that the scavenging and cleansing of the town, isolating in Hospital, fumigating houses, and disinfecting bedding and clothing free of charge, has not in a little contributed to the mildness of the epidemic and the prospects of its soon being entirely stamped out."

The last paragraph is of deep interest. It represents in general terms the policy which has been followed out from that day to this, a period of 60 years, in the last 30 of which the drive has been intensified with all the advantages of notification of cases, improved Hospitals, improved methods of disinfection, improved methods of treatment of cases, and closer supervision all round.

Elliston's hope that the disease would be stamped out has not been realised. That consummation is as far off to-day as it was in his day. But we are better off than Elliston. He did not know why his methods failed. We now know why we shall never succeed on these lines.

1880.

Diphtheria.—"There was one outbreak in a house in Woodbridge Road remarkable for its virulence, when there was no apparent cause for its origin. The mother and two children died from the disease, while a relative who nursed them narrowly escaped with her life."

I quote this extract because there are practitioners to-day who are as much at a loss as Elliston was 57 years ago as to the origin of the so-called sporadic cases of Diphtheria. To the modern epidemiologist there is no mystery.

Diarrhœa.—"The fatal prevalence of Diarrhœa in a particular quarter of the year has for several years occupied a prominent position in the vital statistics of Ipswich, and the exceptionally fatal prevalence of the disease during the summer quarter of 1880 induces me to present a special report on the subject."

This report examines the question as then understood, with emphasis upon temperature and rainfall, but with increasing conviction upon the excrementitious origin of the disease. He emphasises that in the streets with small back yards and privy middens the street and the houses reeked with the stench of decomposing human excreta in the month of September especially, and he makes the comment that milk or any other food could not fail to become contaminated under such conditions. He makes no mention of flies, but considers aerial convection as the cause of the contamination of the food.

He does not mention germs.

He mentions that the Diarrhœa mortality of Ipswich at this time was so notorious that the Local Government Board had intimated that it was about to institute an enquiry in Ipswich into the whole matter.

1881.

Scarlet Fever.—"Isolated cases of Scarlet Fever began to crop up in various quarters of the town; sometimes it would appear in a new suburban district, at another time in a beerhouse or small provision shop in a populous part of the town, but in very few instances could direct infection be traced. There was a singular absence of the disease amongst the working classes, the cases occurring chiefly in the better class of houses, consequently attracting more attention. The disease has been of a very mild type."

My comment on this is that it is exactly the type of thing which has led me to the infection circulating amongst the community. Elliston goes on as follows :—

"The cause of this mild but prolonged outbreak of Scarlet Fever appears to be very obvious; the distribution of milk has had nothing to do with it; the Board Schools have played no part in it, statistical facts are against putting it down to the extension of the sewage works, as there has been a comparative absence of cases on the line of the new sewer."

1882.

Scarlet Fever.—"Many of the cases were of an exceedingly mild type and the spread of the disease was in a large measure due to children from these mildly infected families freely mixing with their neighbours at school and at play. Some of the severe cases were noticed to be in newly erected cottages that had only recently been occupied."

In 1882 Elliston comments upon the rapid improvement in the sanitary condition of the town owing to the opening of the main sewer in 1881.

1883.

Whooping Cough caused 31 deaths in this year, there being a "sharp epidemic" in the early part of the year.

Scarlet Fever.—"Many of the cases have been so mild that little or no notice was taken of the illness, and it is to these mild or overlooked cases in children attending schools we may attribute the prevalence of the disease extending through so long a period."

Thus Elliston recognised the mild unrecognised case of the disease is a source of danger 54 years ago.

Diarrhœa.—"41 deaths from Diarrhœa were registered in 1883. This is the third consecutive year that the deaths from Diarrhœa have been below the average of the past year in Ipswich, and it is to be hoped this decrease has been due to improved sanitation."

The comment I make on this is that it is a lamentable but illuminating illustration of the fatalistic acceptance of what was believed to be an unpreventable condition.

1887.

Measles.—"32 deaths were returned during the year. The disease gradually became general in every part of the town."

Scarlet Fever.—"At the close of the year Scarlet Fever might almost be declared to have died out in Ipswich."

"It seems almost a matter of regret that the compulsory notification of Infectious Disease is not in force in the town, as by its means the first case that occurred could be dealt with and isolated at the outset."

Elliston was quite justified in making this statement in the existing state of knowledge.

Diarrhœa.—"24 deaths were registered from Diarrhœa. This decrease in fatal Diarrhœa in Ipswich in 1887 is the more satisfactory as it was not so noticeable throughout the rest of the country."

1889.

"Whooping Cough was more fatal in 1889 than for many years past, and not only caused 43 deaths, but terribly undermined the health of hundreds of young children. It appears to have been present in an epidemic form throughout the year, and as usual the poorer and more crowded parts of the town had the highest proportionate mortality.

Diphtheria.—"The health statistics of Ipswich for 1889 have been materially affected by the continued prevalence of this disease throughout the year. . . . The experience of Diphtheria in Ipswich during the last twenty years goes to show that during that period it has never been really present in an epidemic form, but that it is seldom altogether absent in a sporadic form. There has been no particular locality in the town where the disease has specially prevailed. . . . Hitherto it has not been the custom in Ipswich to remove cases of Diphtheria to the Fever Hospital, but looking to the nature of the disease and its tendency to spread in an epidemic form, I beg to advise the Sanitary Authority that in future reported cases of this disease be isolated in the same manner as Typhoid and Scarlet Fever."

The above extracts are taken from a special report by Elliston on the 1889 Diphtheria epidemic. This report is of peculiar interest in that it casts a revealing light upon the behaviour of the disease in those days and the attitude of those in authority towards its causation and management.

Elliston comments on the sporadic nature of the disease, its widespread dissemination, and its extreme fatality. He asks the question: "What was the cause of this increase in fatal Diphtheria in Ipswich during the year 1889? In the previous 19 years there had only been an average number of sporadic cases in each year and Ipswich had never before been looked upon as a district subject to outbreaks of Diphtheria."

Elliston comments upon the irreconcilable contradictions presented by the characteristics of the epidemic. He notes for example that it was only occasionally that infection could be traced to a case of the disease, that in some instances more than one case would occur in a family, and in other instances under similar circumstances there would only be one case, and that cases were dotted all over the town without any apparent relation to one another.

He is astonished that a case occurs in an infant school and that 17 other children in the school remained uninfected.

At this point I must refer to Elliston's constant references to fatal Diphtheria. Apparently he only got to know of the severe or fatal cases, and as notification was not in force he probably heard very little about the mild cases, if indeed they were recognised at all. That they existed as they do at the present moment in my view does not admit of argument.

Thus we find a ready explanation of his constant emphasis on the sporadic nature of the disease and its dissemination, because as most of his evidence was derived from fatal cases, without reference to the non-fatal cases, necessarily the distribution of the deaths could give only a very partial picture of the real extent of the epidemic.

In 1889 little was known of bacteria. Elliston had never heard of carriers or subinfective dosage of circulating infection. He had not, at that time, seen the spread of an epidemic of Influenza and was thereby deprived of the immense epidemiological value of that experience. His whole life had been spent in combating conditions of foul insanitation, conditions so gross as to obscure effectively all others. Naturally, therefore, he turned to these conditions for an explanation, and equally naturally he found enough to enable him at least to suggest an explanation for the phenomenon. Thus he states: "In the absence of any direct evidence as to the cause of the disease, and the fact that most of the cases are situated on or near the line of sewers the question suggests itself—Is the disease lurking in our sewers and have the emanations from the sewer gratings anything to do with its wide prevalence? During the last few days of December the mild weather caused some of the sewer ventilators to emit foul smells, and as it seemed both possible and probable that drainage from houses where Diphtheria has been present had found its way into the sewers, it occurred to me that it would be a good thing to introduce a strong germicide into the main sewers of the town."

It is of high interest to note that in the opinion of the Ipswich Health Committee of that day the risk of poisoning fish in the river was deemed of more importance than the possible advantage of this procedure to the health of the community, as the Committee decided to postpone recommending the use of this germicide in the sewers.

Ipswich was visited on this occasion by one of the Medical Officers of the Local Government Board to enquire into the epidemic and consider its causation. Elliston records this as follows. "We came to no definite conclusion as to the cause, but I gathered that he rather supported the theory of the possibility of the disease lurking in the sewers."

The Inspector "would give no opinion as to whether the use of corrosive sublimate would endanger the fish in the river."

Thus 48 years ago emanations were deemed worthy of serious consideration by responsible people. There is a discreet silence as to what agent in the emanations was considered to be responsible for the trouble. It was really the same nebulous idea that governed the conception of humors in the blood of the middle ages. Another idea of the same type was the miasma held responsible for Malaria. The one feature common to all these ideas was the fact that no one indicated what were the agents in the emanations, humors or miasma which gave rise to the pathological condition. They were, however, words as blessed as Mesopotamia. That is where epidemiology was at the time of which we are writing, groping blindly in the dark for even one ray of light.

But it was the darkness before the dawn. The misfortune is that a great many people who should know better are still where Elliston was in 1889. If he were alive now, he would not be with them.

The idea of personal carriage of infection, apart from persons actually suffering from the disease had not yet emerged from the gloom.

In 1881 Koch discovered the Tubercle Bacillus. This line of investigation was to provide the key to the mystery, but many years were to pass before the key could be fitted into its lock. In 1889 that time had not arrived.

1890.

The epidemic of Diphtheria which began in 1889 continued through this year. "The disease was not confined to any one particular quarter of the town."

"Diphtheria showed a decided preference for insanitary dwellings. The bulk of the cases occurred in close confined districts, where the house drains were badly trapped and constructed, and where the small back yards contained foul, deep midden pits." The measures adopted to deal with the epidemic were isolation of the sick, disinfection of premises, exclusion of contacts from school and the removal of sanitary defects.

Elliston's conclusions were as follows :—

"1. Diphtheria is a very infectious disease."

"2. Infection hangs about houses, clothing and other articles that have come in contact with the sick for a long period."

"3. The disease is communicated from one to the other in a large measure by personal infection, and its spread is favoured by dampness of houses, foul midden pits and defective house drains."

Measles.—"The epidemic of Measles which prevailed during the last quarter of the year was the most extensive and fatal that has ever been experienced in Ipswich."

The epidemic began in September in various parts of the town. The early manifestations attracted no attention out of the ordinary. The Western part of the town was attacked first, but later on the disease spread to the Eastern side. The disease assumed a malignant form in November and December, and was responsible for more than 80 deaths."

1891.

Elliston made his first "Official Representation" under the Housing Act of 1890 with regard to houses in Long Lane and Dove Lane.

He also records that Mount Pleasant, Shire Hall Yard, was demolished in this year. He mentions that this particular property had been condemned as unfit for human habitation in 1874.

He attacks the Privy Midden System in this Report with renewed conviction.

1893.

Measles.—"This epidemic of Measles was both directly and indirectly one of the chief causes of the high death-rate in 1893, for there were not only the 42 deaths from Measles, but so many children had their constitutions undermined by the attack, which made them more susceptible to respiratory diseases later on. This was most noticeable in the Summer or June quarter, when the number of deaths from diseases of the respiratory organs, such as Pneumonia and Bronchitis, enormously increased and swelled the weekly returns to such an extent as to attract public attention."

Diarrhœa.—"Ninety-two deaths were returned from Diarrhœa against 33 in the previous year. It is now ten years since we had anything like such a high death-rate from Infantile Diarrhœa and . . . caused some anxiety. Diarrhœa, like Typhoid Fever, is a filth disease and is much influenced by the same conditions, such as high temperature and absence of rain at a certain time of the year, and occurs most in those districts where excremental nuisances abound."

"It is proposed to carry out a more frequent and systematic plan for removal of refuse during the ensuing year, more particularly during the hot summer months. If this be done, it will have a very beneficial effect in limiting the spread of these two fatal diseases."

Scarlet Fever.—This disease was very prevalent all over the town, and the following is of interest :—

"In a special report presented to the Public Health Committee it was pointed out that the elementary schools appeared to be contributing to the spread of the epidemic by means of the mild unrecognised cases that were allowed to mingle with the healthy in the class-room. Acting on this report, the Public Health Committee decided to at once close all the elementary day and Sunday schools in the Borough, which was accordingly done for one month."

"The closure of the schools was at first attended with a marked decline in the epidemic, but on reaching a certain stage the outbreak did not appear to receive the check that was expected, more particularly in the populous localities."

"And so the epidemic only slightly declined down to the Christmas holidays, when there was another lull, which was followed by a fresh recrudescence of the disease in the opening months of the New Year."

Thus Elliston learned that you keep your epidemic even if you close your schools.

1894.

Scarlet Fever.—"The epidemic of Scarlatina . . . continued with unabated vigour all through the greater part of the year 1894."

"Towards the end of November the epidemic began to die out."

Thus this epidemic pursued its course unaffected by any of the steps taken to control it.

Another sidelight is the following :—"The labours of another sub-committee were crowned with success on March 26th, 1894, when a systematic plan of collecting dry house refuse came into force. Now that the system has been successfully worked for nine months, the wonder is how we can have gone on so long without it."

1895.

"Whooping Cough was more or less present in epidemic form all through the year and . . . the Registrar-General mentioned Ipswich as one of the towns where the disease showed exceptional fatality.

"Diphtheria had not been unusually prevalent in Ipswich since the epidemic year 1889-1890, but during 1894 it was noticed that the type of the disease was more severe in individual cases and that a large proportion of the cases ended fatally."

Thus the characteristics of Diphtheria were shown in this particular outbreak in exactly the same way as occurred in 1928, when Diphtheria appeared in a fatal form after four years of comparative quiescence.

Elliston presented a special report on this outbreak, in which he discusses milk, water, emanation from sewer gratings and drains, without finding an answer explaining the epidemic. He found that eight out of every ten houses where Diphtheria occurred showed sanitary defects which he thought might have originated the disease.

He concluded that "in many instances the infection of Diphtheria is received at school." He records an outbreak at St. John's School which was without doubt due to a carrier in the school. Only he had never heard of carriers.

He notes as an interesting and instructive fact "the small number of adults included in the 85 cases of Diphtheria notified."

We know that the adults were not attacked because they had been immunised by the circulating infection of which Elliston had no idea, or anyone else at that time.

This comment is of profound interest. "The anti-toxin treatment was tried in two or three cases, but unfortunately without success, as the children were in extremis at the time."

Typhoid Fever.—"These recurring outbreaks of Typhoid Fever in Stoke show that the drainage is utterly bad, and no improvement in the health of this district can be looked for until it has been properly sewered."

Note the preoccupation with sewerage and drainage.

Diarrhœa.—"122 deaths were registered from Diarrhœa; this is a larger number than in any one year since the great Diarrhœa year of 1880, and taking into consideration the amount of sanitary work done in that period, is most disappointing. A study of the localities where the bulk of the deaths took place last year corroborates this, and these recurring epidemics of Diarrhœa and Typhoid Fever forcibly remind us that we are only at the commencement of that gigantic task of abolishing the foul midden pits of this town."

The word gigantic is well chosen. There were at least 8,000 privy middens in the town at this time.

1896.

"Whooping Cough was more or less present in an epidemic form and, considering the carelessness about it, it would be strange if we are ever free from it."

Scarlet Fever.—"Judging by the number of deaths, four, it might be thought that Scarlet Fever had been almost absent from Ipswich for the last two years, but the compulsory notification of infectious disease proves quite the contrary."

"Scarlatina is a disease which shows every disposition to yield to the influence of preventive measures, therefore it is to be hoped that school authorities will continue to educate themselves up to carrying out these measures in a scientific and practical manner."

There are one or two large assumptions here.

Typhoid Fever.—Oysters appear this year as a cause. The cause was stated to be oysters taken from a laying at Brightlingsea. It is interesting that the "incriminated oysters were taken from a laying situated at the end of one of the sewer outfalls." "Early in the year a case of Typhoid Fever had occurred in a house connected with this sewer."

This is a pretty clear case.

Diarrhœa.—"It is dreadful to think of the great havoc Diarrhœa and Measles made last year with infantile life in Ipswich."

Measles was the subject of a special report in which is stated that "these fatal outbreaks regularly recur every third year."

"The mortality of Measles has been on the increase."

1897.

There is a note in this report that the abolition of privy middens is now in full swing, at the rate of about 500 per annum

1898.

This was a Measles and Diarrhœa year. Measles caused 47 deaths.

Diarrhœa.—A long special report was issued by Elliston on the continued prevalance of fatal Diarrhœa, one of the many to which reference has so often been made.

In illustration, from this special report I quote: "The fatal prevalence of this disease in Ipswich" (1895). "It is rather unusual to have two fatal Diarrhœa summers running in Ipswich" (1896). "Diarrhœa was again very fatal during the summer" (1897).

"The number of deaths returned as due to diarrhœal diseases during the year was 129. . . . This is a larger number than in any one year since the great Diarrhœa year of 1880" (1898).

No more need be said.

This is the first year in which there is a special reference to Tuberculosis. Thus: "I have been in the habit of calling attention year by year to the high mortality from Phthisis in Ipswich, and although a marked decline had taken place during the last ten years, the decrease was much less than in the rest of the country.

"Hitherto I have frequently been in the habit of describing it as "that incurable disease," and did not class it as an infectious disease, but our views as to Tuberculosis have been altogether changed by the discovery of Koch's Bacillus Tuberculosis. We now look upon Consumption as an acquired disease and not a hereditary one, and there is an accumulating weight of evidence which makes it clear that under certain circumstances Consumption is actively communicable."

"The tubercular diseases of children are evidently on the increase in Ipswich, and this at a time when Consumption is decreasing."

There are some very interesting comments here.

1899.

Diarrhœa.—"The year 1899 has beaten the record by 14, the number of deaths registered from diarrhœal diseases being 143. This great fatality from Infantile Diarrhœa, followed as it immediately was by an epidemic of Typhoid Fever, requires serious thought and attention."

Typhoid Fever.—There was a severe epidemic of Typhoid Fever in Ipswich this year.

Water, milk and drainage were eliminated as possible sources of the epidemic.

"The bulk of the cases were associated with premises containing foul midden pits, of which 6,225 still remained in the town."

Elliston ascribed the epidemic to these foul middens, and there is no doubt he was right.

This year the establishment of a Public Abattoir was very much to the fore.

1900.

Typhoid Fever.—Another small outbreak of oyster enteric was recorded.

"Diarrhœa was again very fatal during the summer."

"There can be no doubt that the repeated outbreaks of Influenza during the last 10 years have had a very marked effect upon this district and that the saving of health and life from improved sanitation has been more than counterbalanced by sudden and sharp visitations of this infectious disease."

This comment: "unquestionably, the work we expect to derive the most benefit from is the wholesale conversion of middens into the water carriage system. During the past year 998 of these old-fashioned middens were reconstructed and converted into water closets."

1902.

A special report on Typhoid Fever was issued this year on account of a rather extensive epidemic of the diseases.

The interest in this report is the fact that cockles from the river were held responsible for at least 35 cases, and oysters for 6.

Reference is made to the virulent type of the disease.

1903.

Diphtheria.—"I am glad to be able to report that the modern treatment by anti-toxin serum is being brought into more general use in Ipswich, but it is to be regretted that this valuable curative agent is not always used at the earliest stage of the illness."

Typhoid Fever.—Cockle Enteric was again recorded.

Diarrhœa.—"It is generally believed that the substance which sets up Diarrhœa is introduced into the human body by means of food, and as milk forms the principal food of early childhood, it would seem probable that it is in this fluid the substance is conveyed to the body that ultimately sets up Diarrhœa."

Elliston was quite right about the milk, but the word "substance" is vague.

1904.

Diphtheria.—"It appears that of the 70 patients treated in the Fever Hospital with anti-toxin only one died, and of the remaining 48 treated in their own homes either with or without anti-toxin, and in many cases only just before death, nine died."

Diarrhœa.—"The number of deaths recorded as due to diarrhœal disease in 1904 was 57."

1905.

"Diphtheria was again the one prevalent infectious disease in Ipswich during the year."

Diarrhœa.—"I am strongly of the opinion that a Lady Health Visitor would not only be able to deal with this disease, but with many other complaints that help to swell our infantile mortality."

In 1905 there is a reference to school hygiene.

"It is the first complete year that I have carried out the duties of medically examining children who are alleged to be unfit to attend school, and to see that this description is correct, and if only partially so, to report to what extent the education of the child can be proceeded with."

"The result appears to me to have been attended with success, and I am of opinion that the time has arrived when this medical examination of our scholars in our public elementary schools should be carried further, and that the Medical Officer of Health should carry out a routine medical inspection of all the schools in the Borough under the direction of the Education Committee."

Elliston reports that he examined and classified 54 children under the Defective and Epileptic Children Act.

Thus began school medical inspection in Ipswich.

These quotations from Elliston's reports show in the clearest possible manner the problems with which sanitary authorities were confronted and the way in which they met them.

It is obvious that the chief preoccupation was with the foul environmental conditions in which the majority of the people lived.

Incredibly foul privy middens by the thousand poisoning the atmosphere with their effluvia so that in the hot weather whole areas of the town reeked with the stench of decomposing human excreta.

Filthy unpaved streets and courts. Back yards unpaved and filthy.

Deficient water supplies or actually polluted supplies from wells in the vicinity of the privies.

Gross overcrowding of houses with small back yards on areas rendered pestilential by the above conditions.

No wonder that in the minds of people living under such conditions and devastated by recurring epidemics of Diarrhœa, etc., the constant theme of Elliston's reports, there grew up the belief that wherever there were smells fevers were bred. This belief still persists, although it has long been known that smells by themselves never did breed a fever. Some may remember that a few years ago the fear was expressed that the smells from the effluent from the Beet Sugar Factory would give rise to an epidemic. It was not stated what epidemic was likely to arise, but those who knew, knew that there would be no epidemic. Beliefs like these die hard because there is truth in the statement that where there are certain kinds of smells of human or animal origin, the source of the smell may contain the germs which are the cause of disease. For example, the smells from a privy mean that there is in the privy decomposing material in which human infection may be found and conveyed to food or water or milk, etc., by the agencies of flies, chiefly, but not by the smells themselves.

Elliston's official life was spent in fighting these conditions of environment.

It was a hard and thankless struggle against deeply entrenched interests and the fatalistic prejudice of age-long custom, which accepted the hideous infant mortality of those days as a normal concomitant of existence and was not disturbed by the fact that one half of the children born died before they were 20 years old.

We are discussing the mortality experience of the 70's and 80's of the last century, not of the middle ages.

Of course, the people of those days did not know facts of this kind as we know them, because vital statistics were only known to a very few, and to these few only very partially. But the people did know that their children died and yet they accepted it as normal. To us, at this time, it seems quite incredible. These people were the fathers and mothers of middle-aged people of to-day, and large numbers of the survivors of the holocaust are still alive and quite unaware that when they were born it was even money they would be dead before they were 20 years old. I refer those who do not believe to the tables of vital statistics in this Report which tell the story in language so plain that even the most unaccustomed student of statistics can learn the lesson.

Another lesson contained in Elliston's reports is that any reform which is not backed by public opinion has very little chance of being realised within a reasonable time. Thus Elliston wrote in 1874 that the time had come for the erection of a public abattoir. He repeated this in 1900. The abattoir exists in plans, but not as an abattoir.

Elliston constantly referred to the evils of faulty drainage, sewerage, and privies. The drains and sewers were provided fairly early, e.g., the main sewer was built in 1881, and thus made the rest possible. But the privies, by far the greatest evil of the lot, remained untouched for more than 20 years. No real attempt to deal with this abominable nuisance was made until 1895, and then it was forced upon the town by three men chiefly, viz., the late Alderman W. F. Paul, and Aldermen F. E. Rands and W. Pipe.

It took more than 10 years to complete this work, but Elliston at the time of his retirement had the satisfaction of knowing that this great sanitary improvement for which he had fought so hard for such a long period was almost completed. When he retired the town was provided with a proper system of sewerage and drainage, more or less well-paved streets, a proper water supply to every house, and, in short, with the chief environmental evils practically abolished.

Very little was accomplished in the way of the abolition of slum conditions, so that the slum campaign of to-day represents the final clearing up of the insanitary areas which were partially reconditioned in Elliston's time, by the provision of proper water supply, abolition of privies, drainage, and paving of streets and back yards. These improvements were all to the good and helped to educate public opinion to the advantages of good housing conditions so that the transition to complete abolition found a public prepared to accept the drastic cleansing of the Augean Stable as a right and proper step.

Thus we come back again to the tremendous importance of the education of the people in matters of public health. We know, now, that the public can be educated, and I adduce as full and satisfying proof the fact that we have educated the mothers of Ipswich to produce an infant mortality of 33 per 1,000 births, instead of 150. I reiterate that this is what can be done by the education of ordinary everyday people. A revolution.

One other point emerges from the long delays between realisation and action, and it is the eternal fact that in the end truth prevails only because it is truth. A great encouragement.

A review such as this is of untold value because it brings home to the people of the present day the elementary fact that their fathers had their problems to deal with and that they solved them according to the knowledge of the time and the state of public opinion. It is exactly the same to-day, with the difference that the advance of knowledge within the last few years has far outstripped the capacity of the public to absorb.

Elliston believed that the isolation of Scarlet Fever, etc., with disinfection and so on would lead to the eradication of these diseases. He was quite wrong, but he represented the opinion of his time.

He foresaw the campaign against Tuberculosis, and in his last year of office discussed the concept of the direct attack on infant mortality.

In his last year he also did some inspection of school children for special purposes.

Thus he saw the introduction of a new phase in public health evolution, viz., the attack on disease and death by the institution of measures specially directed to the preservation of the health of the individual by supervision of the individuals themselves.

The termination of Elliston's period of office coincided with the end of the era of concentration on environmental conditions as the main concern of sanitary authorities.

When I succeeded Elliston in 1906 the Staff of the Public Health Department consisted of the following :—

1 Medical Officer of Health.
1 Sanitary Inspector.
1 Assistant Sanitary Inspector.
1 Clerk.
1 Disinfector.
1 Handy Man.

The Medical Officer of Health had no office, and the place of the sanitary service in official and public estimation may be judged by the fact that the office in which the officials worked was a small room at the back of the Town Hall, which is now used by the Borough Surveyor as a print room.

The Fever Hospital, the only institution under the charge of the Public Health Committee, consisted of 36 beds with a nursing staff of three trained nurses, including the matron, and a number of other women as nurses of the highest respectability and the lowest competence.

The tables in this Report dealing with the activities of the Fever Hospital, the Sanatorium, the Municipal Hospital, the East Suffolk and Ipswich Hospital from the point of view of venereal diseases and orthopædics are examples of the activities of the Local Authority in the treatment of diseases at the present day. This aspect of the case has grown slowly as an extension of the notion of the treatment of sick people considered to be a source of danger to other people. These people were isolated for the public benefit, and it was and is, right that they should be treated at the public expense.

At the present moment about 40% of the deaths of inhabitants of Ipswich occur in public instititions. At the beginning of the century the numbers were much less. There is, therefore, a growing demand for hospital services on the part of the public, and it is now recognised that the demand is greater than the charitable can supply. In consequence, either hospital treatment must be refused the people or the Local Authorities must step into the breach. It is for this reason that I have advocated the appropriation of the Poor Law Hospial as a Municipal Hospital. This is now an accomplished fact, and the future of hospital extension in Ipswich is bound up with the future policy of the Local Authority in this relation.

In the future more and more treatment will be undertaken by Local Authorities in addition to their other activities.

The increase in the scope of the activities of the Local Authority since 1906 is shown to the full in this Report. All these services, Tuberculosis, Infant Welfare, School Medical Services, etc., etc., have come into being since 1906, at first as small beginnings, gradually expanding into the fully developed services of the present day.

The list of clinics shows how extensive the provision now is, and the list of officers and other staff required to carry out these multifarious duties is in striking contrast with the meagre number considered necessary in 1906.

The end is not in sight, because public opinion is wholeheartedly in favour of the health activities of Local Authorities. It is public opinion which forces the hands of the legislators to grant more and more powers to Local Authorities.

The progressive authorities will use these powers to the full with immense benefit to the inhabitants. In illustration, I point only to the dramatic decline in infant mortality in this Borough and the change that has taken place in the mortality from Tuberculosis, which has already lost its position as captain of the men of death and, in due course, will cease to occupy a positon of importance in the vital statistics of any properly served community.

POPULATION.

The following Table shows the changes that have taken place in the numbers of the population of Ipswich since the first census in 1801 :—

ear.	Census Populations.			Population Increases					Females per 1,000 Males.
	Males.	Females.	Persons.	Total Increases.	Per cent. Proportions.	Natural Increases	Migrations.		
							Inward	Outward.	
801	4,984	6,293	11,277	—	—	—	—	—	1,262
811	6,064	7 606	13,670	2,393	21.2	—	—	—	1,254
821	7,831	9,355	17,186	3,516	25.6	—	—	—	1,194
831	9,169	11,032	20,201	3,015	17 5	—	—	—	1,203
841	11,894	13,490	25,384	5,185	25 6	—	—	—	1,134
851	15,474	17,440	32,914	7,530	29 6	2,822	4,708	—	1,127
861	17,667	20,283	37,950	5,036	15.3	4,075	961	—	1.148
871	20,047	22,900	42,947	4,997	13 1	4,373	624	—	1,143
881	23,608	26,712	50,320	7,373	17 1	5,290	2,083	—	1,131
891	26,658	30,712	57,360	7,040	13 9	7,033	7	—	1,151
901	31,181	35,449	66,630	9,270	16.1	6,610	2,660	—	1,136
911	34,980	38,952	73,932	7,302	10 9	8,232	—	930	1,113
921	37,359	42,012	79,371	5,439	7.4	5,979	—	540	1,124
931	41,285	46,217	87,502	8,131	10.2	5,616	2,515	—	1,119
931	41,412	46,358	87,770*	—	—	—	—	—	—
932	41,850	46,850	88,700*	—	—	—	—	—	—
933	42,025	47,045	89,070*	—	—	—	—	—	—
934	42,538	47,619	90,157*	—	—	—	—	—	—
935	43 124	48,276	91 400*	—	—	—	—	—	—
936	43 628	48,842	92,470*	—	—	—	—	—	—
937	44,290	49,580	93,870*	—	—	—	-	—	—

* Registrar General's estimates.

The Registrar-General estimates that the population of the Borough at the middle of 1937 was 93,870, an increase of 1,400.

The sex distribution, which is based on the assumption that the female disproportion is at the same rate as existed at the census of 1931, shows an excess of 5,290 females.

Thus the estimates indicate an increase in the population of the Borough since the 1931 Census up to the middle of 1937 of 6,370 persons.

Most observers would agree that there has been a substantial increase in the population in the last few years, but it is more than doubtful whether it is as great as the estimates would suggest. For instance, the natural increase of the population in the year 1937 was 375, representing the excess of births over deaths. Therefore, if the population increased by 1,400 between the middle of 1936 and the middle of 1937, there must have been about 1,000 immigrants in excess of emigrants in the same period. I know of no reason for such excessive immigration.

For several years I have drawn attention to the changes that are taking place in the age constitution of the population in the direction of diminution in the proportion of young people owing to the declining birth-rate, accompanied by increases in the proportions of people at the higher ages in consequence of the fall in the death-rates at all ages under 70 years, but particularly amongst young people.

I reproduce here a Table from my annual Report for 1934, page 13 :—

Age Periods	1841	1851	1861	1871	1881	1891	1901	1911	1921	1931
—5	116	130	130	130	127	119	111	105	86	78
—10	110	106	114	112	117	117	106	103	92	82
—15	104	96	107	108	108	110	106	97	96	80
—20	103	100	97	97	101	105	105	94	90	85
—25	110	100	87	90	88	88	92	82	81	84
—30	85	89	76	74	77	76	82	82	75	81
—35	74	76	68	62	66	68	74	77	73	74
—40	55	63	64	57	57	60	63	71	73	68
—45	55	53	60	56	50	53	56	62	68	66
—50	40	42	47	49	46	44	48	52	64	63
—55	43	39	40	46	43	39	42	45	53	59
—60	24	27	27	34	33	33	32	37	43	52
—65	29	29	28	27	32	29	26	30	35	43
—70	18	18	21	21	22	22	22	25	28	33
—75	14	14	15	17	14	17	16	16	19	23
—80	7	8	9	9	8	9	9	11	12	14
—85	3	4	4	4	4	4	5	5	6	7
+85	2	2	2	2	2	1	2	2	2	3
0—15	330	332	351	350	352	346	323	305	274	240
15—25	213	200	184	187	189	193	197	176	171	169
25—35	159	165	144	136	143	144	156	159	148	155
35—70	264	271	287	290	283	280	289	322	364	384
+70	26	28	30	32	28	31	32	34	39	47

This gives the age composition of each 1,000 of the population at each census since 1841, and it brings out most forcibly the two essential factors already mentioned. The Table was fully discussed in the 1934 Report, so that it will suffice to indicate only its salient features on this occasion. These are :—

1. The changes in the age constitution of the population have, for all practical purposes, taken place during the present century.

2. There is a marked decline in the population under 15 years of age.

3. There is a decline between 15 and 25 years of age, but it is not so marked.

4. The population between 25 and 35 years of age remains proportionally unaffected.

5. Over 35 years of age the population is accumulating steadily, but with gathering momentum.

These facts provide food for much thought.

HOUSING.

The Table shows the number of new houses completed in each year since 1921. The total was 10,854 up to the end of 1937, 7,943 by private enterprise and 2,911 by the Local Authority.

HOUSES ERECTED IN IPSWICH SINCE 1921.

Year.	By Private Enterprise	By the Local Authority under various schemes.	Total.
1921	27	227	254
1922	24	136	160
1923	110	52	162
1924	309	48	357
1925	495	116	611
1926	496	166	662
1927	433	341	774
1928	381	252	633
1929	490	239	729
1930	307	272	579
Total 1921-1930	3072	1849	4921
Annual Averages	307	185	492
1931	289	116	405
1932	397	164	561
1933	635	50	685
1934	832	132	964
1935	952	73	1,025
1936	883	99	982
1937	883	428	1311
Total 1931-1937	4871	1062	5933
Annual Averages	696	152	848

The figures for this Table have been kindly supplied by Mr. McLauchlan, the Borough Surveyor.

The Table shows that house building by private enterprise continues at the high level of recent years.

The figure for 1937 marks the peak of the provision by the Local Authority up to date. For practical purposes the whole number is for slum clearance.

SLUM CLEARANCE.

Three large areas were represented in 1937, namely, Albion Street and District, Cox Lane and District, and the Handford Cut and Road Area.

In addition, numbers of small pockets of insanitary property were represented from time to time.

In all cases the Ministry of Health confirmed the representation of the Local Authority after due enquiry.

With the exception of one comparatively small area and several small scattered pockets, about 200 houses in all, the programme of slum clearance laid down in October, 1933, has now been completed so far as representations of areas, ministerial enquiries, and ministerial confirmations are concerned, so that this part of the campaign has been kept up to date. The same cannot be said for the clearance of the areas and the provision for the rehousing of the people, in both of which connections there have been unexpected delays due in most cases to causes beyond the control of the Local Authority.

It is satisfactory to be able to report that so far as the provision of new houses is concerned, the rate of building has accelerated recently.

I repeat here the warning given in my Report for 1936, that there is a danger of over provision of houses for slum purposes arising from the fact that a considerable number of the occupiers in slum areas prefer to find their own accommodation. The number cannot be known to the Local Authority in advance, and it is a part of the consent of the Ministry of Health that the Local Authority shall show in their representation of an area that they have the means and intention to rehouse the whole of the inhabitants of a condemned area. This is a point well worthy of very close consideration, otherwise the rigid enforcement of the regulation may lead to a disastrous position. So far as Ipswich is concerned, the extent of the risk may be gauged by the fact that, up to the middle of 1938, 297 families occupying condemned houses in slum areas had found their own accommodation. 184 of these families were in the Rope Walk area alone.

Another factor of great importance in the provision of new housing is the necessity of providing for the needs of small families. Reference has been made to this point in many preceding Reports in this series, but it will bear repetition once more. Some idea of the extent of this aspect of the case is given in the Table:—

REHOUSING REQUIREMENTS OF SMALL FAMILIES IN SLUM AREAS.

Areas.	Size of families.	
	2 Persons	1 Person
Rope Walk and District ...	170	65
Lower Orwell Street ...	18	14
St George's Street ...	37	10
Bell Lane ...	28	14
Albion Street ...	57	13
Cox Lane ...	26	21
Handford Road ...	8	3
Total ...	344	140

This list does not include similar families in the small pockets. There are a good many of these, but the figures given will serve to indicate that here is a problem requiring the closest examination, especially in the light of the facts that families of this size are likely to increase in number in the future and that institutional housing is no longer regarded as the proper mode of procedure.

The slum campaign in Ipswich has been going on since the War.

The first area declared was the Black Horse Lane, Lady Lane Area in 1923, followed a few years later by the Tanners Lane, Curriers Lane, Mount Street Area.

These areas occupied many years before completion, and the pace then set would have dragged out the slum business to unconscionable lengths. The lesson was not lost.

The present campaign required a great deal of mapping out and an incredible amount of labour on the part of the staff of the Public Health Department. I record here my gratitude to the members of my staff for their unstinted contribution towards the realisation of the 1933 programme, now, as stated, already practically completed so far as the Public Health Department is concerned.

From first to last 2,307 houses have been represented to and accepted by the Local Authority and the Ministry.

The list is made up as follows :—

Areas.	Number of Houses.
Rope Walk Area	946
Albion Street Area	217
Tanners Lane, Curriers Lane, Mount Street Area	177
Black Horse Lane, Lady Lane Area ...	155
Cox Lane Area	138
Bell Lane Area	124
St. George's Street Area	118
Lower Orwell Street Area	92
Handford Road, Handford Cut Area ...	65
All other small areas, pockets, etc.	275
Total	2,307

It will be observed that the areas dealt with are, in most cases, of considerable size. This is a result of policy, and the policy was dictated by the nature of the local housing conditions.

Ipswich is an old town, a very old town, and though nothing of the very old town is now left except names, there are large areas in which the houses exhibit all the worst features of the industrial towns of the early part of the 19th century, both as regards structure and density. Indeed, the guiding principle appears to have been that the most successful builder was the man who could crowd the greatest number of houses on the smallest amount of space.

Nothing but a drastic clearance of such areas could deal with the case.

I take, without hesitation, full responsibility for my own part in the selection of the areas to be dealt with and in the definition of their limits. That is a duty laid upon the Medical Officer of Health by statute and upon him alone.

Fortunately for that officer, however, the law ordains that the burden of responsibility must be shared by the Local Authority.

In this, my last word to the Local Authority, I wish to record that the Public Health Committee have in each and every case unanimously accepted my official representations of the areas to be dealt with. I thank the Committee for this expression of their confidence.

In each and every case the Public Health Committee represented the areas to the Town Council as represented by me to them, and in each and every case the Town Council unanimously adopted the recommendations of their Public Health Committee.

In each and every case the Ministry of Health, after an enquiry, the impartiality and justice of which earned the respect of every person competent to judge, endorsed the scheme of the Local Authority, with two small and unimportant exceptions (Turners Place and one side of Star Lane).

Every scheme of slum clearance involves hardship falling most heavily upon the class of owner least able to bear financial loss. This aspect of the case was dealt with on page 15 of my Annual Report for 1932. In that Report ample warning was given to the Local Authority of the conditions that would arise as soon as the slum clearance campaign began to operate in earnest. The conditions therein stated are exactly the conditions with which the Hardships Committee of the Corporation are now faced.

Part of the suggestions contained in that Report, viz., that dealing with additional compensation for attempts at proper maintenance, is now the law of the land. I am very glad indeed that I warned the Corporation six years ago that the problem existed and would become clamant.

The present campaign deals with the most conspicuous examples of slumdom in the town at the present time, but it is in no sense the last word. The standard of housing requirement rises year by year, and there are many houses in various parts of the town conforming to the standards of 50 years ago, but far below modern standards as to the provision of baths, means of food storage, sanitary arrangements, density, and so forth. Many of these properties have arrived at the stage of deterioration, a process which accelerates with the passage of time.

These are the properties with which the Health Authorities of the not distant future will be called upon to deal. Fortunately, they will have at their back a more and more enlightened public opinion, strengthened by the results that will ensue from the present campaign.

OVERCROWDING.

The overcrowding survey of 1936 showed that Ipswich was one of the industrial towns in the country with a low rate of overcrowding, only 1.8%.

Nevertheless, if each case of overcrowding had had to be provided with a new house, a serious addition to the building programme in connection with slum clearance would have been required.

So far no houses have been built under the Overcrowding Act, and there appears to be every reason to believe that none will be required, as 75% of the cases discovered have been abated already through the utilisation of existing housing accommodation.

Thus the claim may be made that the worst evils of slumdom will have disappeared from the town, with the completion of the programme already sanctioned by the Ministry. And at the same time overcrowding as a serious social evil will have ceased to exist.

What these achievements will mean to the health and happiness of the people may be a matter of dispute, but I have no doubt in my own mind that they mark the beginning of a new era in the lives of large sections of the community.

Good housing means better health, and better health is the foundation of prosperity. Under modern conditions an unhealthy community is doomed.

MARRIAGES.

823 marriages were registered in Ipswich in 1937. This is the third highest figure recorded since 1841. It was surpassed in 1919 (898) and in 1915 (856), but these were quite abnormal years.

The behaviour of the marriage-rate is shown in the following Table:—

Periods.	No. of Marriages.	Marriage rates per 1000 living.	
		Ipswich.	England & Wales.
1841—1850	2,815	19.43	16.1
1851—1860	3,302	18.70	16.9
1861—1870	3,550	17.64	16.6
1871—1880	4,143	17.77	16.2
1881—1890	4,152	15.37	14.9
1891—1900	4,777	15.43	15.6
1901—1910	5,209	14.86	15.5
1911—1920	6,819	17.83	16.6
1921—1930	6,740	16.20	15.5
1841—1845	1,239	18.29	15.7
1846—1850	1,576	20.42	16.5
1851—1855	1,689	19.84	17.1
1856—1860	1,613	17.65	16.7
1861—1865	1,790	18.35	16.8
1866—1870	1,760	16.96	16.4
1871—1875	2,072	18.56	17.1
1876—1880	2,071	17.04	15.3
1881—1885	2,170	16.59	15.2
1886—1890	1,982	14.22	14.7
1891—1895	2,326	15.60	15.1
1896—1900	2,451	15.28	16.1
1901—1905	2,560	14.99	15.6
1906—1910	2,649	14.73	15.3
1911—1915	3,201	16.94	16.4
1916—1920	3,618	18.70	16.8
1921—1925	3,316	16.34	15.7
1926—1930	3,424	16.06	15.4
1931—1935	3,650	16.32	16.2
1931	679	15.48	15.6
1932	694	15.72	15.2
1933	713	16.00	15.7
1934	798	17.70	16.9
1935	766	16.76	17.2
1936	808	17.47	17.4
1937	823	19.66	—

The highest marriage-rate recorded in Ipswich was 23.1 in 1919, and the lowest 13.0 in 1887.

BIRTHS.

1,393 births were registered as belonging to Ipswich in 1937, as compared with 1,378 in the previous year.

The facts as to the number of births and the birth-rates are set forth in the following Table :—

Periods.	Number.			Rates per 1,000 living.	
	Males.	Females.	Persons.	Ipswich.	England and Wales.
1841—1850	4,783	4,608	9,391	**32.4**	32.6
1851—1860	6,088	5,837	11,925	**33.7**	34.1
1861—1870	6,805	6,488	13,293	**33.0**	35.2
1871—1880	8,005	7,606	15,611	**33.4**	35.4
1881—1890	8,619	8,485	17,104	**31.6**	32.4
1891—1900	9,058	8,729	17,787	**28.7**	29.9
1901—1910	9,586	9,212	18,798	**26.8**	27.2
1911—1920	8,436	8,102	16,538	**21.6**	21.8
1921—1930	7,602	7,396	14,998	**18.0**	18.3
1841—1845	2,036	2,056	4,092	**30.2**	32.3
1846—1850	2,747	2,552	5,299	**34.3**	32.8
1851—1855	2,914	2,864	5,778	**33.9**	33.9
1856—1860	3,174	2,973	6,147	**33.6**	34.4
1861—1865	3,308	3,144	6,452	**33.0**	35.1
1866—1870	3,497	3,344	6,841	**32.9**	35.3
1871—1875	3,820	3,646	7,466	**33.4**	35.5
1876—1880	4,185	3,960	8,145	**33.5**	35.3
1881—1885	4,258	4,230	8,488	**32.4**	33.5
1886—1890	4,361	4,255	8,616	**30.9**	31.4
1891—1895	4,444	4,339	8,783	**29.4**	30.5
1896—1900	4,614	4,390	9,004	**28.0**	29.3
1901—1905	4,899	4,719	9,618	**28.1**	28.2
1906—1910	4,687	4,493	9,180	**25.5**	26.3
1911—1915	4,481	4,271	8,752	**23.1**	23.6
1916—1920	3,955	3,831	7,786	**20.1**	20.1
1921—1925	3,829	3,883	7,712	**19.0**	19.9
1926—1930	3,773	3,513	7,286	**17.1**	16.7
1931—1935	3,395	3,310	6,705	**14.9**	—
1921	844	880	1,724	**21.7**	22.4
1922	773	813	1,586	**19.7**	20.6
1923	782	766	1,548	**19.1**	19.7
1924	735	698	1,433	**17.5**	18.8
1925	695	726	1,421	**17.1**	18.3
1926	777	763	1,540	**18.4**	17.8
1927	729	687	1,416	**16.8**	16.7
1928	768	656	1,424	**16.7**	16.7
1929	725	713	1,438	**16.7**	16.3
1930	774	694	1,468	**16.9**	16.3
1931	702	669	1,371	**15.6**	15.8
1932	671	692	1,363	**15.4**	15.3
1933	660	614	1,274	**14.3**	14.4
1934	657	634	1,291	**14.3**	14.8
1935	705	701	1,406	**15.3**	14.7
1936	701	677	1,378	**14.9**	14.8
1937	736	657	1,393	**14.8**	14.9

The birth-rate for 1937 was the lowest recorded in our 97 years of records with the exceptions of 1933 and 1934.

Since 1931 the average annual number of births has been about 1,354, a figure much the same as obtained between 1866 and 1870. In that period, however, the average birth-rate was 32.9 per 1,000 living, whereas in 1931-1937 the average rate has fallen to 14.9 per 1,000 living.

The effect of the declining birth-rate upon the future of this country was dealt with in some detail in my Report for 1936.

I pointed out, and I repeat it for the last time, that the real cause of the decline in the birth-rate is artificial limitation, a procedure practised by all classes of the population and continually extending.

In my view, the main factor in this attitude is insecurity, international, national and personal. This is more important even than selfishness. The plea that women will not have children to be killed in war I do not believe. The maternal instinct is far too strong for such an excuse to apply except in a small minority of women. The decline in the birth-rate began in the age of Victorian security, and had nothing whatever to do with the fear of war.

Lastly, I give the warning that a decline in the birth-rate of the proportions with which we are confronted cannot be redressed under several generations.

The effects of the diminished population of young people on the industrial situation have not yet begun to be manifested, but the time is approaching rapidly.

Our schools are losing their pupils, and our factories will follow in the near future. The factory deficiency can no doubt be made good by machinery, but the loss in the human personnel is irreparable.

ANNUAL NUMBER, SEX AND LEGITIMACY OF THE BIRTHS.

The local experience since 1921 is shown thus :—

Year.	Legitimate.			Illegitimate.			All Births.			Males per 1,000 Females.
	M.	F.	P.	M.	F.	P.	M.	F.	P.	
1921	808	831	1,639	36	49	85	844	880	1 724	959
1922	731	777	1 508	42	36	78	773	813	1,586	958
1923	754	733	1,487	28	33	61	782	766	1,548	1,021
1924	700	669	1,369	35	29	64	735	698	1,433	1,053
1925	661	695	1,356	34	31	65	695	726	1,421	957
1926	748	735	1,483	29	28	57	777	763	1,540	1,018
1927	689	665	1,354	40	22	62	729	687	1,416	1,061
1928	736	625	1,361	32	31	63	768	656	1,424	1,170
1929	694	678	1,372	31	35	66	725	713	1,438	1,017
1930	742	669	1,411	32	25	57	774	694	1,468	1,115
1921-1930	7,263	7,077	14,340	339	319	658	7,602	7,396	14,998	1,028
1931	668	635	1,303	34	34	68	702	669	1,371	1,049
1932	641	656	1,297	30	36	66	671	692	1,363	969
1933	625	581	1,206	35	33	68	660	614	1,274	1,075
1934	632	599	1,231	25	35	60	657	634	1,291	1,036
1935	672	664	1,336	33	37	70	705	701	1,406	1,005
1936	677	645	1,322	24	32	56	701	677	1,378	1,035
1937	696	626	1 322	40	31	71	736	657	1,393	1,120

M. Males F.—Females P.—Persons

Thus at the moment the number of births remains very steady at just under 1,400 per annum.

There is little variation in the proportion of illegitimates.

TWIN BIRTHS.

11 twin pregnancies were recorded in Ipswich in 1937, resulting in the birth of 22 living children.

There were no stillbirths, the first time for 17 years.

5 pregnancies resulted in male twins, 3 in female twins, and 3 in mixed twins.

The local twin records show that since 1921 there have been 294 twin pregnancies, resulting in the birth of 526 living infants and 62 stillbirths.

Thus 89.45% of the twins were born alive, and 10.55% were stillborn. This proportion of stillbirths is more than three times the experience of all births.

The 294 twin pregnancies showed 103 instances in which the infants were both males, 90 in which they were both females, and 101 in which the sexes were mixed.

The proportion of twin births in 1937 to single births was 1.6%, a figure well below the average.

DEATHS AND DEATH-RATES FROM ALL CAUSES AT ALL AGES.

I give a Table showing the crude death-rates, decennial and quinquennial, since 1841, and annual since 1921, recorded for Ipswich, and compared with the corresponding rates for England and Wales :—

Periods.	No. of Deaths (Ipswich).			Crude Death-rates per 1000 living.					
				Males		Females.		Persons.	
	M.	F.	P.	Ipswich	E.&W.	Ipswich	E.&W	Ipswich	E.&W
1841—1850	3,245	3,324	6,569	**23.86**	23.1	**21.62**	21.6	**22.67**	22.4
1851—1860	3,863	3,987	7,850	**23.39**	23.1	**21.22**	21.4	**22.24**	22.2
1861—1870	4,440	4,480	8,920	**23.66**	23.7	**20.84**	21.4	**22.16**	22.5
1871—1880	5,273	5,044	10.317	**24.15**	22.7	**20.34**	20.1	**22.12**	21.4
1881—1890	5,053	5.016	10,069	**20.02**	20.3	**17.43**	18.1	**18.64**	19.1
1891—1900	5,649	5,529	11,178	**19.56**	19.3	**16.74**	17.1	**18.06**	18.2
1901—1910	5,335	5,231	10,566	**16.17**	16.4	**14.09**	14.4	**15.07**	15.4
1911—1920	5,270	5,283	10,553	**14.56**	15.9	**13.10**	13.0	**13.19**	14.3
1921—1930	4,604	4,778	9,382	**11.76**	12.9	**10.88**	11.4	**11.29**	12.1
1841—1845	1,402	1,417	2,819	**22.07**	22.1	**19.70**	20.6	**20.81**	21.4
1846—1850	1,843	1,907	3,750	**25.43**	24.1	**23.43**	22.6	**24.30**	23.3
1851—1855	1,989	1,971	3,960	**24.90**	23.5	**21.80**	21.8	**23.26**	22.7
1856—1860	1,874	2,016	3,890	**21.97**	22.6	**20.69**	21.0	**21.29**	21.8
1861—1865	2,235	2,314	4,549	**24.59**	23.7	**22.21**	21.5	**23.32**	22.6
1866—1870	2,205	2,166	4,371	**22.79**	23.7	**19.56**	21.2	**21.07**	22.4
1871—1875	2,586	2,440	5,026	**24.78**	23.3	**20.52**	20.7	**22.51**	22.0
1876—1880	2,687	2,604	5,291	**23.58**	22.1	**20.16**	19.5	**21.76**	20.8
1881—1885	2,496	2,505	5.001	**20.37**	20.5	**18.01**	18.3	**19.12**	19.4
1886—1890	2,557	2,511	5,068	**19.69**	20.0	**16.88**	17.8	**18.19**	18.9
1891—1895	2.841	2,760	5.601	**20.46**	19.8	**17.32**	17.7	**18.78**	18.7
1896—1900	2,808	2,769	5,577	**18.73**	18.8	**16.20**	16.6	**17.38**	17.7
1901—1905	2,692	2,636	5,328	**16.80**	17.1	**14.55**	15.0	**15.60**	16.0
1906—1910	2,643	2,595	5,238	**15.57**	15.6	**13.66**	13.8	**14.56**	14.7
1911—1915	2,765	2,597	5,362	**15.43**	15.4	**13.06**	13.2	**14.19**	14.3
1916—1920	2,505	2,686	5,191	**13.71**	16.5	**13.14**	12.8	**13.41**	14.4
1921—1925	2,200	2,330	4,530	**11.53**	13.0	**10.87**	11.4	**11.18**	12.2
1926—1930	2,404	2,448	4,852	**11.98**	12.9	**10.89**	11.4	**11.40**	12.1
1931—1935	2,426	2,648	5,074	**11.50**	12.7	**11.21**	11.4	**11.34**	12.0
1921	432	459	891	**11.56**	13.0	**10.92**	11.3	**11.22**	12.1
1922	448	526	974	**11.86**	13.6	**12.39**	12.0	**12.14**	12.8
1923	411	427	838	**10.77**	12.4	**9.96**	10.9	**10.34**	11.6
1924	398	403	801	**10.32**	12.9	**9.31**	11.5	**9.79**	12.2
1925	511	515	1,026	**13.12**	12.9	**11.78**	11.4	**12.41**	12.2
1926	440	429	869	**11.18**	12.4	**9.72**	10.9	**10.41**	11.6
1927	516	544	1,060	**12.99**	13.1	**12.21**	11.6	**12.58**	12.3
1928	481	479	960	**11.99**	12.5	**10.65**	10.9	**11.28**	11.7
1929	505	545	1,050	**12.46**	14.2	**12.01**	12.7	**12.22**	13.4
1930	462	451	913	**11.29**	12.3	**9.84**	10.7	**10.53**	11.4
1931	487	542	1,029	**11.76**	13.0	**11.71**	11.6	**11.73**	12.3
1932	495	573	1,068	**11.88**	12.7	**12.33**	11.4	**12.12**	12.0
1933	487	532	1,019	**11.58**	12.9	**11.30**	11.7	**11.44**	12.3
1934	478	505	983	**11.23**	12.5	**10.60**	11.1	**10.90**	11.8
1935	479	496	975	**11.10**	12.5	**10.27**	11.1	**10.66**	11.7
1936	533	580	1,113	**12.21**	—	**11.87**	—	**12.03**	12.1
1937	483	535	1,018	**10.90**	—	**10.79**	—	**10.84**	12.4

The number of deaths registered in 1937 corresponded very closely with the average of the last few years, and was 95 below the number recorded in the previous year.

The death-rate was below the average of recent years, and was in fact one of the lowest rates recorded in our series of 97 years.

The tendency of the death-rates of males and females to approach one another was a very marked feature of 1937.

A Table such as this, although an essential part of the statistical presentation of the case, is capable of conveying a completely false impression of the true position of the death-rate, which is dependent upon the age distribution of the population and the age distribution of the death-rates.

In the early days of our Table the death-rates at all ages were high because the death-rates amongst young and middle-aged people were very high, so high, indeed, that one-half of the deaths occurred amongst people under 20 years of age, and only 15% amongst persons over 70.

At the present moment the death-rates at all ages are rather less than one-half of those of the earlier period, but the deaths amongst the young have dropped to such an extent that the death-rates under 20 years of age have declined by 80%. On the other hand, the proportion of deaths over 70 years has increased from about 15% to just under 47% of the deaths at all ages.

These changes are well illustrated in the Table showing the age distribution of the death-rates during the whole period of 97 years. A glance at this Table makes the position clear.

Decennial age distribution of the death-rates of persons per million living.

Ages.	1841—1850.	1851—1860.	1861—1870.	1871—1880.	1881—1890.	1891—1900	1901 - 1910.	1911—1920.	1921—1930.	1931—1935.	1936.	1937.
— 5	73,231	69,264	67,157	63,013	55,963	55,317	44,006	31,811	17,207	11,826	11,573	7,601
— 10	9,210	6,503	7,666	5,839	4,389	4,589	3,618	3,784	2,150	2,290	1,977	1,168
— 15	5,115	3,779	4,877	3,501	3,087	2,481	1,925	2,438	1,314	1,331	1,341	925
— 20	7,371	6,808	6,255	5,396	4,139	4,105	2,585	2,954	1,977	1,735	1,525	1,252
— 25	8,728	8,590	8,467	6,821	5,623	4,708	3,920	4,237	2,913	2,468	2,309	2,496
— 30	11,080	9,408	8,919	9,821	6,466	6,080	4,012	4,768	3,034	2,887	2,127	2,358
— 35	10,401	11,350	9,703	10,759	7,905	6,833	5,644	5,231	3,597	2,692	3,364	2,882
— 40	13,553	12,003	12,679	13,672	9,636	9,823	6,968	6,277	4,159	3,351	4,130	3,443
— 45	14,221	12,571	12,879	13,840	11,844	10,756	8,906	7,761	5,931	4,460	4,248	3,541
— 50	15,204	16,423	16,907	17,648	13,298	13,916	12,076	9,786	7,850	6,580	7,145	8,380
— 55	15,822	17,941	18,117	20,263	15,885	17.340	13,733	13,090	10,724	10,054	9,832	8,251
— 60	26,405	25,809	25,083	28,208	24,209	23,510	20,971	18,812	14,403	15,326	16,718	10,778
— 65	32,215	34,516	33,177	35,147	31,839	31,718	28,301	26,058	21,854	21,377	26,156	21,803
— 70	46,594	54,208	51,754	54,651	54,993	53,553	39,489	43,228	35,340	37,494	37,377	38,747
— 75	81,429	67,324	59,694	75,653	74,595	73,151	73,039	64,074	59,050	57,701	65,099	67,706
— 80	115,122	116,137	122,225	136,449	114,770	126,582	110,158	102,907	93,126	103,764	110,526	104,521
— 85	177,121	169,137	170,212	174,450	168,780	174,921	158,938	157,321	148,959	160,719	163,418	114,970
+ 85	290,209	324,030	283,783	333,333	309,426	263,544	245,378	249,051	264,063	252,801	298,305	290,000
All Ages	22,676	22,241	22,162	22,127	18,642	18,061	15,074	13,799	11,299	11,348	12,036	10,844

Thus in 1937 a new low level was recorded under 5 years of age, and also between 5 and 10 years. The low death-rate between 10 and 15 years was not the lowest recorded, but very nearly so.

In general terms the death-rates in 1937, under 70 years of age, made up a series of records with the exception of the age period 45-50.

Over 70 years of age the death-rate was above the average experience of the last 20 years, and the proportion of deaths at these ages to deaths at all ages rose to the highest level as yet recorded.

DEATHS AND DEATH-RATES OVER 70 YEARS OF AGE.

The deaths and death-rates of elderly people have already assumed such proportions in relation to the deaths and death-rates at all ages as to have become the predominant factor in determining the death-rates at all ages.

I therefore repeat the Table given in last year's Annual Report, in which is shown in terms of decennia and quinquennia the death-rates of persons over 70 years of age over a period of 97 years, together with the proportions borne by these deaths to deaths at all ages for the same period of time.

Periods.	Deaths and Death-rates over 70 years of age.								
	Deaths.			Death-rates.			Proportions of Total Deaths at all ages.		
	M.	F.	P.	M.	F.	P.	M.	F.	P.
1841-1850	427	537	964	122.000	116.133	118.660	13.15	16.15	14.67
1851-1860	513	657	1,170	118.012	108.272	112.337	13.27	16.47	14.90
1861-1870	626	773	1,399	118.269	100.520	107.756	14.09	17.25	15.68
1871-1880	801	1,045	1,846	131.462	119.414	124.360	15.19	20.71	17.89
1881-1890	849	1,046	1,895	121.130	106.712	112.723	16.80	20.85	18.78
1891-1900	983	1,301	2,284	116.427	111.587	113.620	17.40	23.53	20.43
1901-1910	1,130	1,463	2,593	116.004	104.002	108.912	21.18	27.96	24.54
1911-1920	1,268	1,702	2,970	114.637	96.452	103.459	24.06	32.21	28.14
1921-1930	1,477	2,045	3,522	104.182	90.820	95.982	32.08	42.80	37.53
1841-1845	195	253	448	120.000	119.114	119.498	13.90	17.85	15.96
1846-1850	232	284	516	123.733	113.600	117.942	12.58	14.89	13.76
1851-1855	260	314	574	125.120	109.943	116.335	13.07	15.93	14.49
1856-1860	253	343	596	111.502	106.787	108.739	13.50	17.01	15.32
1861-1865	310	369	679	123.950	102.357	111.202	13.87	15.94	14.92
1866-1870	316	404	720	113.180	98.898	104.696	14.33	18.65	16.47
1871-1875	414	515	929	138.322	118.227	126.411	16.00	21.10	18.48
1876-1880	387	530	917	124.838	120.591	122.348	14.40	20.35	17.33
1881-1885	414	497	911	124.736	107.250	114.547	16.58	19.84	18.21
1886-1890	435	549	984	117.886	106.230	111.086	17.01	21.86	19.41
1891-1895	470	637	1,107	116.192	112.963	114.312	16 54	23.07	19.76
1896-1900	513	664	1,177	116.643	110.299	112.977	18.26	23.97	21.10
1901-1905	529	665	1,194	111.933	100.590	105.318	19.65	25.22	22.40
1906-1910	601	798	1,399	119.840	107.027	112.180	22.73	30.75	26.70
1911-1915	656	838	1,494	122.800	100.407	109.146	23.72	32.26	27.86
1916-1920	612	864	1,476	107.011	92.903	98.275	24.43	32.16	28.43
1921-1925	651	970	1,621	100.540	92.345	95.468	29.59	41.63	35.78
1926-1930	826	1,075	1,901	107.244	89.486	96.424	34.35	43.91	39.17
1931-1935	956	1,197	2,153	111.085	90.916	98.916	39.40	45.20	42.43
1936	233	255	488	130.825	93.646	108 348	43.63	44.04	43.84
1937	206	271	477	114.001	98.946	104.353	42.65	50.65	46.85

M.—Males F.—Females P.—Persons

The Table emphasises several important facts.

1. There is evidence of a definite decline in the mortality experience of persons over 70 years of age during this century, but especially between 1916 and 1935. This really expresses the fact that life over 70 years of age is becoming more and more prolonged.

2. The female mortality experience at these ages is always lower than the male. This, again, expresses the fact that the longevity of females over 70 is greater than that of males. Thus, of five persons living aged 70 years and over, 3 are females, and of 3 persons aged 80 and more, 2 are females.

3. The columns showing the proportion of deaths over 70 years of age to deaths at all ages prove that deaths in this group provide a steadily increasing proportion of the total deaths at all ages.

It is shown that in the earlier decades the increase was slight, but as time passed on the proportion advanced at an ever-increasing rate until it reached its high-water mark in the year 1937.

As always, the female proportion increased more rapidly than the male, and I record with some gratification that the forecast made some years ago in these reports, that the proportion was within measurable distance of one-half of the total deaths at all ages was actually realised by females in 1937. We can rest assured that in the course of a few years the males will have followed the example of the females.

This whole Table affords conclusive proof of the improvement in the health of the people. For practical purposes we can claim that a child born to-day has an even chance of reaching the age of 70 years.

This contrasts with the experience of the middle of the 19th century, when a child born had an even chance of death before its 20th birthday was reached.

This demonstrates conclusively that the health experiences of the people living at the middle of the 20th century, compared with the middle of the 19th century, are, at least so far as Ipswich is concerned, poles apart.

CAUSES OF DEATH OVER 70 YEARS OF AGE.

For several years I have given a Table showing the causes of death of elderly people. I do not give it this year because the groups remain at the moment practically constant.

In order, the causes are :—

Heart Diseases.
Cancer.
Bronchitis.
Cerebral Hæmorrhage, etc.
Pneumonia.
Bright's Disease.
Senility.
Arterio Sclerosis.

The broad general fact is that old people die from degenerations, the chief of which is the degeneration group of Heart Diseases.

The part played by Cancer is increasing, and, apart altogether from the question of diagnosis, is likely to continue to increase on account of the influence of prolongation of life as a result of more successful methods of treatment in the earlier stages of the disease.

The Bronchitis of the old, as well as the Pneumonia, is not the same as in the case of young people, chiefly because of association with a degenerated heart.

Cerebral Hæmorrhage and Arterio Sclerosis are related closely, since the Hæmorrhage always comes from a diseased blood vessel. Healthy arteries do not rupture. The elucidation of the causes of Arterio Sclerosis and the possibility of its prevention would change the lives of tens of thousands of sufferers from the blighting effects of strokes and many other conditions.

The position of the Senility group has been shown in previous reports to represent merely a change in the form of death certification.

The more modern practitioner prefers to assign death to some form of Heart Degeneration rather than to Senile decay.

THE PRINCIPAL CAUSES OF DEATH AT ALL AGES, 1937.

Causes of Death.	Males.		Females.		Persons.	
	No.	Death-rates.	No.	Death-rates	No.	Death-rates
Heart Diseases	99	2.23	120	2.42	219	2.33
Cancer	60	1.35	80	1.61	140	1.49
Bronchitis	42	.94	37	.74	79	.84
Cerebral Hæmorrhage etc	27	.60	49	.98	76	.80
Pneumonia	39	.88	33	.66	72	.76
Influenza	24	.54	29	.58	53	.56
Tuberculosis	26	.58	21	.42	47	.50
Violence	30	.67	16	.32	46	.49
Bright's Disease	16	.36	30	.60	46	.49
Arterio Sclerosis	19	.42	13	.26	32	.34
Prematurity	9	.20	7	.14	16	.17
Senility	3	.06	10	.20	13	.13
All Others Causes	89	2.09	90	1.81	179	1.90
Total all Causes	483	10.90	535	10.79	1,018	10.84

This Table, with one outstanding exception, is practically identical with the corresponding Table for 1936. The exception is Influenza, which moved up from 12th place in 1936 to 6th in 1937.

Heart Diseases, as always, head the list, followed by Cancer and Bronchitis.

Influenza was more fatal in 1937 than for a good many years.

The deaths from Tuberculosis were the smallest recorded in the known history of the Borough.

The others in the list showed only the annual variations to be expected at the present day.

MONTHLY DEATH-RATES (PERSONS).

I give a Table showing the average monthly mortality experiences for the period covering over 97 years' records.

SEASONAL MORTALITIES (PERSONS).

Month	1841—1880	1881—1900.	1901—1910	1911—1920.	1921—1930.	1931—1935.	1936.	1937
January	24.02	21.52	18.64	15.81	15 60	12.59	14.55	15.80
February	24.21	20.37	18.19	19 22	15 23	15.61	12.82	15.83
March	23.40	21 49	16.74	16 61	13 70	14.72	15.83	11.41
April	21.88	18 36	14 95	14.34	11.70	11.32	13.32	11 79
May	20.95	16.33	14 16	12 86	9.98	10.25	11.23	8 02
June	19.25	14.89	12.29	11 32	9.61	11 05	12.00	9 72
July	18 00	15.15	11.96	10 57	9.03	9.43	9 19	9 53
August	23 11	19.08	14.01	11.43	8 80	9.61	9.83	9 53
September	25 66	18.95	14 64	12.01	8.61	9 03	9.89	10 62
October	21.59	17.12	13 66	12.13	10.06	9.45	11 74	8.90
November	21.17	17.37	15.28	16.08	10.84	10.59	8.70	9.72
December	24.05	20.45	16.50	13.65	12 48	12 72	15.19	9 65
Whole Year	22.27	18.33	15.00	13.80	11.27	11 34	12 03	10 84

Seasonal mortalities have been referred to in detail in previous reports.

In 1937 the highest mortalities were experienced in February, January, April and March, in the order given. There is little variation in this from the average, except that April takes the place of November.

The lowest mortalities occurred in May, October, July and August in the order stated. The position of May is unusual, but nowadays July and August are practically always found in this group.

It is very unusual to find such a low mortality figure in December.

QUARTERLY DEATH-RATES (PERSONS).

The Table explains itself.

Decennial Periods.	March		June.		September.		December.	
	Death-rates.		Death-rates.		Death-rates.		Death-rates.	
	Ipswich	England & Wales.	Ipswich	England & Wales	Ipswich	England & Wales.	Ipswich	England & Wales.
1841—1850	24.05	24.7	21.12	22.0	23.09	21.0	22.44	21.7
1851—1860	23.61	24.7	20.56	22.1	22.34	20.3	22.45	21.9
1861—1870	23.84	25.2	20.38	21.8	22.18	21.0	22.26	22.1
1871—1880	24.05	23.7	20.81	20.9	21.60	19.6	22.07	21.3
1881—1890	20.92	21.6	17.15	18.7	17.18	17.3	19.29	19.1
1891—1900	20.69	20.7	15.99	17.6	18.17	17.0	17.41	17.7
1901—1910	17.84	17.7	13.89	14.6	13.53	13.8	15.15	15.4
1911—1920	17.15	17.2	12.84	13.6	11.32	11.8	13.93	15.0
1921—1930	14.83	15.5	10.42	11.7	8.82	9.5	11.12	11.8
1931	16.10	16.5	10.93	11.5	9.41	9.6	10.54	11.7
1932	17.10	15.4	10.23	11.6	9.45	9.7	11.56	11.5
1933	13.52	17.1	10.76	10.8	9.75	9.4	11.75	12.0
1934	13.13	14.6	10.88	11.8	9.31	9.6	10.84	11.2
1935	11.67	13.2	11.62	12.0	9.20	9.8	10.20	12.0
1936	14.44	—	12.17	—	9.63	—	11.91	—
1937	14.30	—	9.82	—	9.89	—	9.42	—

The March quarter of 1937, as usual, exhibited the highest mortality of the year. Nowadays this is the invariable experience.

The death-rate for the June quarter was the lowest on record, chiefly owing to the low mortality of the month of May.

The death-rate of the September quarter was fractionally higher than the average of recent years.

On the other hand, the death-rate of the December quarter was the lowest on record. This was due to continued low mortality experiences for each of the months in the quarter, but particularly December.

The Table shows that over the whole period covered by the Table the greatest decline has occurred in the September quarter, and the least in the March. This illustrates forcibly the proposition that the conditions giving rise to the former high mortality experiences of the September quarter were capable of substantial improvement, whereas those responsible for the mortality of the March quarter belong to groups far less amenable to remedial measures.

MORTALITY FROM THE SEVEN PRINCIPAL ZYMOTIC DISEASES.

The group includes Enteric Fever, Smallpox, Scarlet Fever, Diphtheria, Measles, Whooping Cough and Diarrhœa under two years of age.

The Table gives the decennial and quinquennial experiences for a period of 97 years.

Periods	Males		Females		Persons	
	Nos.	Rates	Nos.	Rates	Nos.	Rates
1841—1850	401	2.94	383	2.49	784	2 70
1851—1860	438	2 65	471	2.50	909	2.57
1861—1870	523	2.78	539	2.50	1062	2.63
1871—1880	737	3 37	688	2.77	1425	3.05
1881—1890	514	2 03	528	1.83	1042	1.92
1891—1900	740	2.56	685	2 07	1425	2.30
1901—1910	486	1.47	443	1.19	929	1.32
1911—1920	347	.95	291	.72	638	83
1921—1930	130	.33	120	.27	250	.30
1841—1845	121	1.90	103	1.43	222	1.65
1846—1850	280	3.86	280	3 42	562	3.63
1851—1855	229	2.86	249	2.75	478	2.80
1856—1860	209	2.45	222	2.27	431	2.36
1861—1865	309	3.40	340	3 26	649	3 32
1866—1870	214	2.21	199	1.79	413	1 99
1871—1875	389	3.72	339	2 85	728	3.26
1876—1880	348	3.05	349	2.70	697	2 86
1881—1885	215	1.75	253	1.81	468	1.78
1886—1890	299	2.30	275	1.84	574	2 06
1891—1895	321	2.31	304	1.90	625	2 09
1896—1900	419	2.79	381	2.22	800	2 49
1901—1905	280	1.74	244	1.34	524	1.53
1906—1910	206	1.21	199	1.04	405	1 12
1911—1915	230	1.28	193	.97	423	1 11
1916—1920	117	.64	98	.47	215	55
1921—1925	65	34	71	.33	136	33
1926—1930	65	.32	49	21	114	.26
1931—1935	50	.23	46	19	96	.21
1931	17	.40	25	.54	42	47
1932	13	31	7	.15	20	22
1933	6	14	7	14	13	14
1934	10	23	7	.14	17	18
1935	4	09		—	4	.04
1936	5	.11	11	.22	16	17
1937	2	04	2	.04	4	04

Thus 4 deaths were ascribed to the group in 1937. This is the lowest number ever recorded with the exception of the year 1935, when 4 deaths also were registered.

The deaths in 1937 included 1 from Measles and 3 from Diarrhœa under 2 years of age, but none from either Scarlet Fever, Diphtheria, Enteric Fever, Smallpox or Whooping Cough.

This is a very remarkable record indeed, and without parallel in the whole period under review.

The heaviest mortalities recorded in our series of 97 years were 307 in 1863 (Scarlet Fever 198), 241 in 1872 (Smallpox 147), 215 in 1898 (Diarrhœa 139), and 212 in 1895 (Diarrhœa 123).

In this century Zymotic mortalities over 100 per annum were recorded as follows: 140 in 1901 (Diarrhœa 63, Whooping Cough 35), 118 in 1904 (Diarrhœa 73), 111 in 1912 (Measles 51, Whooping Cough 34), and 105 in 1903 (Measles 48, Diarrhœa 29).

These are impressive figures and show quite clearly that the fight against these diseases is achieving a remarkable degree of success in so far as the prevention of death is concerned.

In the case of Diarrhœa the prevalence of the disease has been reduced to very small proportions indeed, whilst Smallpox is unknown.

The same cannot be said of either Scarlet Fever, Diphtheria, Measles or Whooping Cough.

The Enteric group has lost is endemic character.

DEATHS AND DEATH-RATES FROM SCARLET FEVER.

There were no deaths from Scarlet Fever in 1937.

Table showing the deaths and death-rates from Scarlet Fever since 1841-1850.

Periods.	Males.		Females.		Persons.	
	No.	Rate.	No.	Rate.	No.	Rate.
1841—1850	53	.38	67	.43	120	.41
1851—1860	56	.33	64	.34	120	.33
1861—1870	153	.81	151	.70	304	.75
1871—1880	101	.46	99	.39	200	.42
1881—1890	18	.07	20	.06	38	.07
1891—1900	21	.07	31	.09	52	.08
1901—1910	4	.01	11	.02	15	.02
1911—1920	26	.07	18	.04	44	.05
1921—1930	3	.007	6	.01	9	.01
1841—1845	16	.25	20	.27	36	.26
1846—1850	37	.51	47	.57	84	.54
1851—1855	27	.33	39	.43	66	.38
1856—1860	29	.34	25	.25	54	.29
1861—1865	115	1.26	118	1.13	233	1.19
1866—1870	38	.39	33	.29	71	.34
1871—1875	59	.56	43	.36	102	.45
1876—1880	42	.36	56	.43	98	.40
1881—1885	16	.13	20	.14	36	.13
1886—1890	2	.01	—	—	2	.00
1891—1895	19	.13	18	.11	37	.12
1896—1900	2	01	13	.07	15	.04
1901—1905	1	.00	5	.02	6	.01
1906—1910	3	.01	6	.03	9	.02
1911—1915	23	.12	15	.07	38	.10
1916—1920	3	.01	3	.01	6	.01
1921—1925	1	.00	5	.02	6	01
1926—1930	2	.01	1	00	3	00
1931—1935	1	.00	4	04	5	.01
1931	—	—	3	.06	3	03
1932	—	—	1	.02	1	01
1933	—	—	—	—	—	—
1934	—	—	—	—	—	—
1935	1	.02	—	—	1	.01
1936	—	—	—	—	—	—
1937				—	—	—

The low mortality from Scarlet Fever at present experienced is not unique, as our Table shows that it was paralleled in the period 1886-1890. This comparison will teach us valuable lessons on the folly of dogmatism and the value of data collected over a long period of time.

Our Table shows that Scarlet Fever was a very serious disease indeed. The fact that 198 persons died from Scarlet Fever in Ipswich in 1863 should not be forgotten, especially in view of the fact that although we know a great deal more about the Scarlet Fever group of diseases than we did, there are still many gaps in our knowledge.

There is one striking difference between 1886-1890 and the present day. In the former period the available records indicate that the disease incidence was exceedingly low over the whole period. On the other hand, at the present time, Scarlet Fever prevalence is as high as ever, but the case fatality is extremely low.

We explain this fact by the statement that the type is mild, but there is not yet any completely satisfactory explanation as to why the type is mild.

What we do know from practical experience is that the type of Scarlet Fever present in one epidemic or in one cycle, varies in the most definite way from the type present in another epidmic or cycle period.

DEATHS AND DEATH-RATES FROM DIPHTHERIA.

There were no deaths from Diphtheria in 1937.

The following Table shows the behaviour of the Diphtheria death-rates since 1841.

Periods	Males.		Females.		Persons.	
	No.	Rate.	No.	Rate.	No.	Rate.
1841—1850	19	.13	16	.10	35	.12
1851—1860	23	.13	27	14	50	.14
1861—1870	43	.22	57	.26	100	.24
1871—1880	56	.25	53	.21	109	23
1881—1890	77	.30	91	.31	168	31
1891—1900	72	.24	85	.25	157	.25
1901—1910	57	.17	45	12	102	.14
1911—1920	69	.19	58	14	127	.16
1921—1930	27	.06	25	05	52	.06
1841—1845	7	.10	7	.09	14	·10
1846—1850	12	.16	9	.10	21	·13
1851—1855	7	.08	5	05	12	·07
1856—1860	16	.18	22	22	38	20
1861—1865	24	.26	48	46	72	·36
1866—1870	19	19	9	.08	28	13
1871—1875	15	.14	17	.14	32	·14
1876—1880	41	.35	36	27	77	·31
1881—1885	20	.16	27	.19	47	·17
1886—1890	57	43	64	43	121	·43
1891—1895	51	.36	52	.32	103	·34
1896—1900	21	.14	33	.19	54	·16
1901—1905	30	.18	28	.15	58	·16
1906—1910	27	.15	17	.09	44	·12
1911—1915	35	.19	24	.12	59	·15
1916—1920	34	18	34	.16	68	·17
1921—1925	9	.04	16	.07	25	·06
1926—1930	18	.08	9	.04	27	·06
1931—1935	26	12	25	.10	51	·11
1931	13	.31	11	.23	24	.27
1932	7	.16	5	.10	12	.13
1933	2	.04	5	.10	7	.07
1934	2	.04	4	.08	6	.06
1935	2	.04		—	2	.02
1936	3	.06	3	.06	6	06
1937	—	—	—	—	—	—

Thus once again a phase of Diphtheria prevalence has come to an end. The type which appeared in 1928, after a period of quiescence, appears to have worked itself out, and we can only wait for the next phase, whatever that may prove to be.

The pity of this is that we have in our possession the means to immunise the community to the extent of at least 90 per cent. against attack, and the almost complete abolition of the death penalty. The objection to this is ignorance on the part of the public.

This attitude of the public is supported by a small, but noisy, minority of Medical Practitioners. This type of practitioner always exists because the intelligence quotient of medical men varies as much as that of the laity. It is but another illustration of the psychological fact that the call of ignorance to ignorance inevitably secures the adherence of an appreciable number of the public.

MEASLES.

There was one death from Measles in 1937.

The facts with regard to Measles mortality are set forth in the Table :—

Periods.	Males.		Females.		Persons.	
	No.	Rates.	No.	Rates.	No.	Rates.
1841—1850	52	.38	35	.22	87	30
1851—1860	39	.23	32	.17	71	.20
1861—1870	38	.19	36	.16	74	.18
1871—1880	43	.19	36	.14	79	.16
1881—1890	103	.40	93	.32	196	.36
1891—1900	102	.35	79	.22	181	.29
1901—1910	103	.31	90	.24	193	.27
1911—1920	70	.19	52	.12	122	.15
1921—1930	26	.06	21	.04	47	.05
1841—1845	29	.45	12	.16	41	.30
1846—1850	23	.31	23	.28	46	.29
1851—1855	21	.26	15	.16	36	.21
1856—1860	18	.21	17	.17	35	.19
1861—1865	27	.29	26	.24	53	.27
1866—1870	11	.11	10	09	21	.10
1871—1875	15	.14	12	.10	27	.12
1876—1880	28	.24	24	.18	52	.21
1881—1885	27	.22	27	.19	54	.20
1886—1890	76	.58	66	.44	142	.50
1891—1895	30	.21	34	.21	64	.21
1896—1900	72	.48	45	.26	117	.36
1901—1905	49	.30	40	.22	89	.26
1906—1910	54	.31	50	.26	104	.28
1911—1915	45	.25	37	.18	82	.21
1916—1920	25	.13	15	.07	40	.10
1921—1925	10	.05	12	.05	22	.05
1926—1930	16	.07	9	.04	25	.06
1931—1935	6	.02	3	.01	9	.02
1931	1	.02	2	.04	3	.03
1932	3	.07	—	—	3	.03
1933	1	.02	1	.02	2	.02
1934	—	—	—	—	—	—
1935	1	.02	—	—	1	01
1936	1	.02	2	.04	3	.03
1937	—	—	1	.02	1	.01

The great feature of this Table is its record of the decline in the fatality of Measles. The decline in the number of deaths from Measles is not due to a fall in the number of cases, because the prevalence of the disease is undiminished, as recent experience shows. This matter was discussed at some length in my Report for 1936, in which I showed that the disease was never absent from a large urban community. The meaning of this is that the infection is constantly in circulation amongst the community, and the cases are the evidence. The public, of course, hears only of the big epidemics.

To explain the low fatality of Measles at the present day, we fall back on the type of disease.

But this may not be the whole story. I think it is probable that the unceasing work of the Health Visitors has done much to prevent the occurrence of Bronchitis and Pneumonia, the two complications really causing the deaths from Measles.

These diseases again are related closely with insanitary conditions of housing, and it is more than probable that the improvement in the housing conditions of the people has contributed in no small degree to the diminution in the fatality of the disease. I have already pointed out, and I repeat it with emphasis, that the prevalence of Measles is independent of conditions of housing. The experience of the New Estates in this relation ought to be sufficient to dispose of the fiction sedulously fostered by certain groups that diseases such as Whooping Cough, Measles, Scarlet Fever, etc., are the direct consequence of insanitary conditions. These diseases are not the result of insanitary conditions, but their risks are increased by insanitary conditions, quite a different proposition.

DEATHS AND DEATH-RATES FROM WHOOPING COUGH.

There were no deaths from Whooping Cough in 1937.

The Table shows the deaths and death-rates from Whooping Cough since 1841.

Periods.	Males.		Females.		Persons.	
	No.	Rates.	No.	Rates.	No.	Rates.
1841—1850	76	.55	89	.57	165	.56
1851—1860	66	.39	98	.52	164	.46
1861—1870	82	.43	97	.45	179	.44
1871 1880	126	.57	139	.56	265	.56
1881—1890	110	.43	138	.47	248	.45
1891—1900	98	.33	102	.30	200	.32
1901—1910	75	.22	92	.24	167	23
1911 1920	64	.17	73	.18	137	.17
1921—1930	33	.08	39	08	72	.08
1841—1845	31	.48	32	.44	63	46
1846—1850	45	62	57	.69	102	66
1851—1855	26	.32	53	.58	79	46
1856—1860	40	.46	45	.46	85	46
1861—1865	33	.36	37	.35	70	35
1866—1870	49	50	60	.54	109	.52
1871—1875	60	.57	60	.50	120	.53
1876—1880	66	.57	79	.61	145	.59
1881—1885	44	.35	76	54	120	.45
1886—1890	66	.50	62	.41	128	.45
1891—1895	52	37	50	.31	102	.34
1896—1900	46	.30	52	30	98	.30
1901—1905	45	.28	45	.24	90	.26
1906—1910	30	.17	47	24	77	.21
1911—1915	39	21	43	.21	82	21
1916—1920	25	13	30	.14	55	14
1921—1925	17	09	21	09	38	09
1926—1930	16	07	18	08	34	08
1931—1935	10	04	9	.03	19	.04
1931	—	—	7	.15	7	.07
1932	2	04	—	—	2	.02
1933	2	.04	1	02	3	.03
1934	6	.14	1	.02	7	.07
1935	—	—	—	—	—	—
1936	1	02	4	.08	5	.05
1937	—	—	—	—	—	—

The same considerations advanced in the case of Measles apply in the case of Whooping Cough.

Whooping Cough by itself is rarely fatal, but it has a strong tendency to give rise to Bronchitis and Pneumonia, the two chief causes of death in Whooping Cough.

Here again the work of the Nurses has had a great deal of influence in the prevention of these complications.

Whilst insanitary housing does not give rise to epidemics of Whooping Cough, it has definite influence in promoting the incidence of Bronchitis and Pneumonia.

The infection of Whooping Cough is always in circulation amongst the community, a statement proved by the fact that cases of the disease are never absent.

But it is only the epidemics of which the public becomes aware.

DIARRHŒA.

There were three deaths from Diarrhœa, all infants under one year of age.

One death occurred in May and two in December.

One infant was aged one month and two were seven months old.

The summer Diarrhœa type of disease was absent.

There always have been sporadic cases of this kind in addition to the epidemic varieties, but it is the epidemic types which have disappeared.

INFLUENZA.

53 deaths were ascribed to Influenza in 1937, one of the highest figures recorded for a good many years.

The Table shows the deaths and death-rates from Influenza since 1841 :—

Period.	Deaths and Death-Rates from Influenza.					
	Number of Deaths			Death-Rates per 1,000 living.		
	M.	F.	P.	M.	F.	P.
1841—1850	10	13	23	.073	.084	.079
1851—1860	3	3	6	.018	.015	.016
1861—1870	4	1	5	.028	.004	.012
1871—1880	—	2	2	.000	.008	.004
1881—1890	1	4	5	.003	.013	.009
1891—1900	121	143	264	418	.433	.425
1901—1910	79	82	161	239	.220	.228
1911—1920	171	204	375	471	.505	.490
1921—1930	101	132	233	.258	.300	.280
1841—1845	2	4	6	.031	055	.044
1846—1850	8	9	17	.110	.110	.110
1851—1855	3	1	4	037	.011	.023
1856—1860	—	2	2	-	.020	.010
1861—1865	3	1	4	.033	.009	020
1866—1870	1	—	1	010		004
1871—1875	—	1	1	—	.008	.004
1876—1880	—	1	1	—	.007	.004
1881—1885	—	—		-	-	-
1886—1890	1	4	5	007	026	017
1891—1895	71	86	157	511	533	525
1896—1900	50	57	107	333	333	333
1901—1905	32	36	68	199	198	199
1906—1910	47	46	93	276	.241	258
1911—1915	39	36	75	.217	.182	198
1916—1920	132	168	390	.722	819	774
1921—1925	40	68	108	209	317	266
1926—1930	61	64	125	304	284	293
1931—1935	38	51	89	180	215	.199
1931	6	5	11	.144	107	125
1932	9	23	32	215	490	360
1933	15	16	31	356	.340	348
1934	6	3	9	141	.063	099
1935	2	4	6	046	.082	065
1936	8	8	16	183	.163	173
1937	24	29	53	541	584	564

Influenza was present to some extent at the end of 1936, but it assumed real epidemic proportions in January and February of 1937.

29 deaths from Influenza were registered in January, 17 in February, and 3 in March.

It reappeared in the end of the year.

Influenza is the great epidemic of modern times, and it is not improbable that many of the great plagues of the past were malignant types of Influenza, such as swept over the world in 1918.

The chief characteristics of modern epidemics of Influenza are their speed and density, the direct results of the conditions of modern life. Distance no longer exists, and time is reckoned in terms of hours and days instead of weeks and months. The consequence is that the epidemic experiences of the inhabitants of any part of the globe are no longer matters of remote interest to the rest of the world, since diseases which hitherto were deemed of interest only in their endemic homes, can now be carried by the aeroplane, in a few hours or days, to the uttermost ends of the earth.

It will be obvious that a Nasopharyngeal Infection, such as Influenza, to which the inhabitants of the earth have not become immune, is to be expected to recur in periodic epidemics, since the infection is never absent from some part or parts of the world, if not always present in every part.

The matter is made much more probable by the unfortunate fact that the immunity conferred by an attack of Influenza is extremely short, a matter of a few months. This is one of the reasons for the huge numbers who suffer from the disease, since, with a great many people, a dose of Influenza is looked upon as an annual event. In this respect Influenza differs radically from other Nasopharyngeal Infections, such as Measles, Whooping Cough, Diphtheria, etc., one attack of which, as a rule, confers life-long immunity.

A little thought will show that the density of the populations of the modern world and the social habits of the peoples provide all the opportunities requisite for the unlimited exchange of infections.

Influenza infects people of all ages, but its fatal results are largely confined to the elderly. Thus in 1937 there were only five deaths of persons under 45 years of age, whilst there were eleven between 45 and 60, and 37 over 60 years of age.

SMALL POX.

There were no cases notified in 1937.

DEATHS FROM TUBERCULOSIS.

47 deaths (26 males, 21 females) were ascribed to the various forms of Tuberculosis in Ipswich in 1937, as compared with 60, 57, 75, 59 and 75 respectively in the five preceding years.

This is the smallest number of deaths from Tuberculosis yet recorded in the known history of the Borough.

40 of the deaths (males 25, females 15) were referred to Pulmonary Tuberculosis, and 7 (males 1, females 6) to Non-Pulmonary Tuberculosis.

The following Table shows the death-rates per million living from the various forms of Tuberculosis from 1841-1850 to the present date :—

Periods	Pulmonary Tuberculosis.			Non-Pulmonary Tuberculosis.			All forms of Tuberculosis.		
	M.	F.	P.	M.	F.	P.	M.	F.	P.
1841—1850	3,529	3,610	3,572	360	357	359	3,890	3,968	3,931
1851—1860	2,725	3,088	2,918	551	420	481	3,276	3,508	3,400
1861—1870	2,819	2,857	2,839	570	344	449	3,390	3,201	3,289
1871—1880	2,739	2,423	2,571	476	496	486	3,215	2,919	3,058
1841—1880	2,909	2,921	2,915	496	411	451	3,405	3,333	3,367
1881—1890	2,167	1,970	2,062	630	608	618	2,797	2,578	2,680
1891—1900	1,984	1,526	1,740	450	430	439	2,435	1,956	2,179
1881—1900	2,070	1,733	1,890	534	512	522	2,604	2,246	2,413
1901—1910	1,728	1,215	1,456	397	363	379	2,125	1,579	1,836
1911—1920	1,332	1,069	1.193	367	282	322	1,700	1,352	1,516
1921—1930	986	703	837	186	157	168	1,173	860	1,008
1841—1845	3,873	4,019	3,950	94	152	125	3,968	4,172	4,076
1846—1850	3,228	3,252	3,241	593	537	563	3,822	3,790	3,805
1851—1855	3,105	3.296	3,207	638	420	522	3,744	3,717	3,729
1856—1860	2,368	2,894	2,649	469	420	443	2,837	3,315	3,092
1861—1865	2,520	3,071	2,814	517	297	399	3,037	3,359	3,214
1866—1870	3,101	2,655	2,863	620	388	496	3,721	3,044	3,359
1871—1875	2,808	2,607	2,701	469	538	498	3,277	3,146	3,207
1876—1880	2,676	2,253	2,452	482	456	469	3,159	2,710	2,921
1881—1885	2,359	2,143	2,244	644	640	642	3,004	2,783	2,887
1886—1890	1,986	1,808	1,891	616	578	595	2,602	2,386	2,487
1891—1895	2,131	1,701	1,901	439	351	392	2,571	2,052	2,294
1896—1900	1,848	1,363	1,590	460	503	483	2,308	1,866	2,073
1901—1905	1,779	1,335	1.543	349	331	339	2,128	1,667	1,883
1906—1910	1,679	1,100	1,373	442	394	417	2,121	1,495	1,790
1911—1915	1,468	981	1,212	357	246	299	1,825	1,227	1,511
1916—1920	1,199	1,155	1,175	377	318	346	1,577	1,473	1,522
1921—1925	1,085	779	923	183	154	167	1,268	933	1,091
1926—1930	892	631	754	189	160	173	1,082	791	928
1931—1935	734	597	662	113	143	129	848	741	791
1931	869	776	820	144	215	182	1,014	992	1,002
1932	788	661	721	95	149	124	884	811	845
1933	618	425	516	214	85	145	832	510	662
1934	752	672	709	47	189	122	799	861	831
1935	649	455	547	69	82	76	718	538	623
1936	710	409	551	45	143	97	756	552	648
1937	564	302	426	22	121	74	587	423	500

M.—Males F.—Females P.—Persons

In 1937 the death-rate from the Pulmonary and the Non-Pulmonary forms of Tuberculosis was in each case the lowest recorded.

The facts shown in this Table are amongst the most remarkable in the health records of this very ancient borough.

In the first place it is seen that the death-rate from Tuberculosis has been falling during the whole period of 97 years, but not at the same rate throughout. Thus, in round figures, the death-rate halved itself in the 60 years between 1841-1900. Again it halved itself in the 25 years between 1901 and 1925, and it has again halved itself in the last 11 years. Thus the speed of fall has been accelerating with the passage of time.

The direct campaign against Tuberculosis did not begin in Ipswich until 1910. As we have seen, a substantial reduction in the Tuberculosis death-rate had already taken place, with which neither the National Insurance Act nor the local direct campaign had anything to do.

I ascribe the reduction referred to, to four main causes.

(1) Substantial improvement in the conditions under which large sections of the community were living.

(2) Improvement in wage levels and educational attainment.

(3) Increasing racial immunity closely bound up with the causes stated.

(4) The introduction of rational systems of treatment instead of the ignorant empiricism, which, more often than not, deprived the unfortunate patient of even a slender prospect of recovery

The direct attack began in Ipswich in 1910, with the establishment of the Dispensary and the setting aside of a Ward of ten beds in the Isolation Hospital for institutional treatment.

The Sanatorium, built by voluntary subscription, was opened in 1912, and the campaign has continued with unabated energy ever since.

In my opinion it has contributed materially to the acceleration in the rate of decline in the Tuberculosis death-rate, which has been the feature of the Tuberculosis statistics of recent years.

At the time the Tuberculosis campaign came into being the hope was expressed in some quarters that, as the death-rate from Tuberculosis had declined so much within a measurable period of time without direct effort on a national scale, the establishment of a direct attack would bring about the practical disappearance of the disease within a comparatively short period.

This hope has not been realised, but substantial progress has been made.

Tuberculosis is no longer the captain of the men of death; indeed, it is very much otherwise.

The death-rates from Tuberculosis have declined at all age periods. I give a Table illustrating this feature.

Age distribution of the Tuberculosis death-rates per million living (persons).

Age Periods	1841—1880	1881—1900	1901—1910	1911—1920	1921—1930	1931—1935	1936	1937
— 5	3,488	3,020	2,105	1,869	731	598	413	271
—10	1,081	1,006	802	458	275	163	263	259
—15	1,300	1,041	604	531	270	166	134	132
—20	3,018	1,969	1,221	1,455	769	762	508	501
—25	4,620	2,758	2,181	1,924	1,369	1,088	898	758
—30	5,136	2,996	2,032	1,959	1,247	1,347	797	524
—35	5,107	3,212	2,227	1,897	1,494	937	1,023	1,008
—40	5 434	3,497	2,464	1,878	1,278	920	794	469
—45	4,780	3,492	2,256	1,990	1 464	946	816	804
—50	4,275	3,700	2,579	2 044	1,362	1,020	1,020	670
—55	3,547	2,776	2,065	1,788	1,452	1,355	728	717
—60	3,350	2,268	2,796	1,660	1,141	768	619	203
—65	2,225	2 442	2,118	1,358	1,142	832	1,006	495
—70	2,245	2,620	2,043	1,737	1,215	610	655	322
+70	690	948	1,722	522	408	321	222	218
All ages	3,367	2,413	1,836	1,516	1,008	791	648	500

There is nothing more conspicuous in this Table than the fall in the Tuberculosis death-rate amongst young people. This is the acid test of the reality of the decline of the Tuberculosis death-rate and the foundation for the confident hope that the fall is destined to continue.

We need not stop to argue about the causes that have produced the state of affairs with which we are confronted to-day. The essential thing is to recognise the fact and associate it with the conditions under which we are living because these conditions cannot be divorced from the Tuberculosis death-rate.

The position of the Tuberculosis death-rate is a first-class testimonial to the soundness of the lines along which modern public health activities are proceeding.

I have referred to the decline in the Tuberculosis mortality-rates of young people. I produce another Table showing the deaths from various forms of Tuberculosis amongst children under one year from 1841-1850 to the present day.

	Number of Deaths under 1 year from various forms of Tuberculosis.				Death-Rates per 1,000 Births
	Pulmonary.	Cerebral.	Abdominal.	All Forms.	
1841—1850	31	—	34	68	7 241
1851—1860	56	3	61	120	10 062
1861—1870	21	3	59	85	6 394
1871—1880	17	10	50	82	5.252
1881—1890	20	41	30	98	5.729
1891—1900	15	21	27	68	3 710
1901—1910	17	14	15	59	3 138
1911—1920	7	18	10	43	2.600
1921—1930	1	10	—	12	800
1931—1937	—	5	—	6	.633

Thus in the last 17 years 18 infants have died from Tuberculosis, or, in round figures, one per annum.

Of these 15 died from Cerebral Tubercle, two from General Tuberculosis, and one from Pulmonary Tuberculosis.

There were no deaths from Abdominal Tuberculosis.

Not the least remarkable of the features in the Table is the position of Abdominal Tuberculosis as a cause of death in infancy. Without laying too much stress on the value of the figures of the last century, it is worthy of the most serious consideration that no death from Abdominal Tuberculosis in infancy has been registered for 17 years. In other words, it does not now exist as a fatal disease in infancy, although in the 19th century it was a well recognised cause of infant death. Were the 19th century people always wrong?

The answer to this query is quite definitely "No." Nevertheless it is doubtful whether Abdominal Tuberculosis occurred as often as the doctors of that day thought.

But we note that Pulmonary Tuberculosis in infancy has practically disappeared also, although in the middle of the last century it was given, quite often, as a cause of death. Was this a matter of diagnosis also?

It is very easy to be superior and criticise the practitioners of the last century for faults of commission and omission, but it is more than doubtful if we should have done any better than they did with the means at their command. They had no X-Rays, Blood Tests, super-stethoscopes, etc., but they had a clinical knowledge which I venture to suggest formed no mean substitute for these modern aids to accurate diagnosis.

Therefore it is well to be wary of condemning old statistics as altogether valueless in comparison with modern data.

I happen to be old enough to have worked with Tuberculosis in both the 19th and 20th centuries, and that experience enables me to reject categorically the view that 19th century practitioners may be expected to be wrong and 20th century practitioners right.

All that has happened is that the margin of error has been reduced.

Finally, I repeat that the age distribution of Tuberculosis death-rates, with its emphasis on the decline amongst young people affords conclusive evidence that the fall in the Tuberculosis death-rate is a real fact, not a piece of statistical jugglery.

The fact that amongst the young as well as the old, the Tuberculosis death-rate keeps on the decline, indicates in clear and definite terms that within a measurable period of time other uses will have to be found for Sanatoria and Tuberculosis Dispensaries.

These units are indispensable elements in any scheme in connection with Tuberculosis, but they are only a part. The whole includes compulsory notification, disinfection, education, hospital treatment for advanced cases and Surgical Tuberculosis as well.

All these agencies were advocated in my Reports to your authority for the years 1908, 1909 and 1910, but particularly 1909.

The Hospital unit was realised at the Isolation Hospital in 1910, Notification in the Ipswich Public Health Act 1911, the Tuberculosis Dispensary in 1910, and the Sanatorium in 1912. The name of the late Alderman William F. Paul is inseparably united with the Sanatorium, as it was largely owing to his generosity and untiring energy that the project was realised and the Institution handed over to the Corporation free of debt.

The figures I have given for the year 1937 are a complete vindication of the soundness of the policy advocated in these Reports and its practical application since. Ipswich has ceased to be notorious for the prevalence of Tuberculosis.

CANCER.

140 deaths (60 males, 80 females) were referred to Cancer in 1937, as compared with 184, 164, 151, 154 and 155 respectively in the five preceding years.

There was thus a considerable decline in the Cancer Death-rate in 1937. In fact, it was the lowest since 1927.

Both sexes shared in the decline in the death-rate, but chiefly the male.

13.7% of the deaths from all causes were ascribed to Cancer.

74 of the persons dying from Cancer were over 70 years of age. This was equal to 52.8% of the total Cancer deaths at all ages. This is by far the highest proportion recorded to date.

I give a Table showing the deaths and death-rates from Cancer since 1841 :—

Period.	Numbers and Crude Death-rates.					
	Males.		Females.		Persons.	
	No.	Rates.	No.	Rates.	No.	Rates.
1841—1850	12	.08	50	32	62	.21
1851—1860	21	12	80	.42	101	28
1861—1870	47	.25	143	.66	190	.47
1871—1880	96	.43	193	.77	289	61
1881—1890	115	.45	243	.84	358	66
1891—1900	182	.63	299	.90	481	.77
1901—1910	290	.87	413	1.11	703	1.00
1911—1920	399	1.10	562	1.39	961	1.25
1921—1930	523	1.33	694	1.58	1217	1.46
1841—1845	4	.06	24	33	28	20
1846—1850	8	.11	26	31	34	.22
1851—1855	12	.15	43	.47	55	32
1856—1860	9	.10	37	.38	46	25
1861—1865	12	.13	77	.74	39	.45
1866—1870	35	,36	66	.59	101	48
1871—1875	48	46	103	.86	151	67
1876—1880	48	.42	90	.69	138	56
1881—1885	50	.40	117	.84	167	63
1886—1890	65	.50	126	.84	191	68
1891—1895	74	53	145	91	219	73
1896—1900	108	.72	154	.90	262	81
1901—1905	117	.73	164	.90	281	82
1906—1910	173	1.01	249	1.31	422	1.17
1911—1915	196	1.09	274	1.38	470	1.24
1916—1920	203	1.11	288	1.40	491	1.26
1921—1925	256	1.34	329	1.53	585	1.44
1926—1930	267	1.33	365	1.62	632	1.48
1931—1935	314	1.48	443	1.87	757	1.69
1926	44	1.10	61	1.38	105	1.24
1927	50	1.23	66	1.45	116	1.34
1928	49	1.21	80	1.75	129	1.50
1929	57	1.41	79	1.73	136	1.58
1930	67	1.63	79	1.72	146	1.68
1931	47	1.13	86	1.85	133	1.51
1932	67	1.60	88	1.87	155	1.74
1933	59	1.40	95	2.01	154	1.72
1934	62	1.45	89	1.86	151	1.67
1935	79	1.83	85	1.76	164	1.79
1936	86	1.97	98	2.00	184	1.99
1937	60	1.35	80	1.61	140	1.49

Repeated reference has been made in these reports to the statistical increase in the Cancer death-rate, and the Table provides the proof.

I accept the statistics, but not at their face value, and I consider that the formulation of opinions as to the real position of Cancer from such a series or any similar series is an analytical blunder of the first magnitude.

Cancer is a disease of middle and advanced age. There are exceptions to this generalisation, because Cancer of the Uterus, Ovaries and Breast occur not infrequently before middle age. Apart from this group, Cancers of other parts of the body may occur at any age, but their occurrence in the young is rare; so rare that they do not vitiate the generalisation.

So far as our local statistics go there is no evidence of increase in the Cancer Death-rate of either sex under 40 years of age. There is on the other hand evidence of increase over 45 years of age, increasing in volume as age advances, and reaching its maximum at all ages over 70. It is at these high ages that the real increase in the Cancer Death-rate has occurred.

This fact is inevitably linked up with the ageing of the population. In the middle of the 19th century, when half the population died under the age of 20 years, less than half could survive to the Cancer age. To-day, on the other hand, nearly one-half of the population dies at the age of 70 or more, so that far more than one-half survives to middle age and over.

Hence the mere fact of the ageing of our population carries with it an increase in the number of deaths from Cancer. This again draws attention to two factors exercising influence in this relation.

The first of these is that people are no longer prepared to accept death at or about the age of 70 as an inevitable fact. The majority of modern people about these ages still possess considerable bodily vigour and a large measure of their mental equipment

They refuse to be told they are dying of old age, and that it is no use bothering. They want to know what is the matter with them.

This brings us to our second point, viz., modern means of diagnosis.

Here is the crux of the statistical increase in the Cancer Death-rate.

When Cancer statistics are examined in detail it will be found that the increases are greatest in the case of Cancers of internal organs, and least in external organs, such as the Breast. It is, therefore, no matter of surprise that as the means of examination of the internal parts of the body have increased, the accuracy of the determination of the causes of disease have increased also.

The two great factors rendering possible the closer examination of the interior of the body are, in chronological order, the discovery of Antiseptic Surgery and of X-Rays.

Antiseptic Surgery removed from the surgeon's mind the fear of interfering with the abdomen. He was able to advise his patient that an obscure abdominal disease justified an exploratory operation which would enable him, at one and the same time, to establish the diagnosis, and carry out such surgical procedures as were required.

This, in part, accounts for the increase recorded for Cancers of the Intestine, etc.

The part played by X-Rays is even greater. Not only have they rendered the survey of the abdominal organs a matter of everyday practice, but they have made it possible to scrutinise the contents of the Thorax. This scrutiny has revealed that Cancer of the Lung is not a rare lung disease as it was at one time thought, and that cancerous growths occur in the Mediastinum in situations undiagnosable except by X-Ray examination.

These illustrations will suffice to indicate that the view, which I hold definitely, that the increase in the Cancer Death-rate represents, in reality, an increase in the accuracy of diagnosis, is founded upon very strong evidence indeed.

Our summary of this part of the problem is increasing recognition, not increasing prevalence.

The acceptance of this view does not diminish the gravity of the position, it merely alters the angle of approach to a problem which assumes greater and preater proportions as our equipment for the detection of disease increases.

Amongst the peculiarities of Cancer is its predilection for certain sites. Thus the Breast, Uterus and Intestines in women, and the Stomach in men.

There is no real explanation of these selections, but they are quite definite and must be due to something.

Probably something infinitely little, but capable of profoundly influencing cell life, such as the influence of the Endocrine Glands. These glands, as we know, secrete substances into the blood stream capable of producing the most profound alterations in cell growth, and it may be that, in Cancer, the disturbance of cell growth which is the real feature of the disease, may be the result of a minute Endocrine disharmony. In vital phenomena the influence of the infinitely little should never be forgotten.

SITE DISTRIBUTION OF THE DEATHS FROM CANCER.

The following Table gives the experience of 1937 :—

Site.	Males.	Females.	Persons.
Stomach	15	12	27
Breast	—	23	23
Intestines	6	14	20
Rectum	7	3	10
Lungs	8	2	10

This includes the same organs as in 1936, with the exception that Cancers of the Lung replace Cancers of the Oesophagus.

AGE AND SEX DISTRIBUTION OF THE DEATH-RATES FROM CANCER PER MILLION LIVING.

Age Periods	1841—1880			1881—1900.			1901—1910.			1911—1920.			1921—1930.			1931—1935.			1937.
	M	F	P	M.	F.	P.	M.	F.	P.	M.	F.	P.	M	F.	P.	M	F	P	P.
— 5	20	20	20	—	43	21	—	26	13	82	27	55	58	—	29	55	—	28	135
— 10	—	11	5	15	—	7	27	27	27	51	53	52	55	54	55	—	53	27	129
— 15	12	—	6	32	31	31	—	54	28	—	—	—	27	26	27	—	54	27	—
— 20	29	12	20	54	—	24	—	—	—	—	27	14	28	26	27	165	—	78	—
— 25	32	24	28	43	17	28	70	—	32	—	29	16	32	79	58	—	48	26	126
— 30	55	121	91	72	100	88	76	128	104	69	184	130	97	58	77	—	53	27	262
— 35	127	298	221	26	277	161	40	105	75	35	196	119	106	183	147	193	113	151	144
— 40	70	724	418	274	586	440	273	916	616	190	673	447	292	479	392	284	244	262	626
— 45	261	916	618	312	1,168	772	716	1,130	936	467	1,011	756	529	1,083	821	290	1,263	811	1,287
— 50	249	1,801	1,083	867	1,669	1,302	1,398	1,859	1,644	925	2,086	1,539	1,023	2,003	1,532	654	2,251	1,477	1,670
— 55	718	1,842	1,328	1,613	2,359	2,019	2,371	2,651	2,523	1,999	2 513	2,276	2,439	2,634	2,542	2,056	3,019	2,560	1,434
— 60	917	1,987	1,498	2,176	4,541	3,481	3,928	3,582	3,741	3,338	3,792	3,580	3,731	3,389	3,550	4,352	3,468	3,885	2,440
— 65	1,239	2,682	2,041	3,266	3,442	3,365	4,846	5,288	5,095	5,236	4,085	4,595	4,662	5,445	5,093	4,608	4,551	4,577	3,964
— 70	2,447	2,552	2,505	5,108	6,096	5,664	5,939	5,854	5,890	10,417	7,973	9,033	8,205	6,638	7,334	7,818	8,266	8,068	7,103
— 75	1,967	2,714	2,404	5,479	4,287	4,804	9,045	7,705	8,252	11,039	10,550	10,740	12,436	8,575	10,140	10 740	11,568	11,222	9,354
— 80	2,331	2,822	2,603	3,124	4,797	4,099	9,230	8,826	8,992	15,178	11,200	12,736	13,992	12,573	13,108	20,145	15,205	17,112	17,790
— 85	2.797	2,663	2,714	2,820	6,563	5,025	6,172	7,105	6,705	6,905	11,389	9,699	11,420	15,877	14,238	19,658	16,074	17,375	5,917
+ 85	935	517	666	4,716	2,791	3,389	1,808	8,858	6,373	5,076	9,090	7,590	8,962	11,242	10,495	8,247	14,846	12,605	16,666
All Ages	248	579	424	548	877	723	879	1,112	1,002	1,103	1,394	1,256	1,336	1,580	1,465	1,488	1,875	1,693	1,491
+ 70	2,131	2,579	2,393	4,400	4,659	4,551	8,208	8,034	8,106	11,300	10,754	10,962	12,554	11,102	11,663	14,524	13,595	13,962	11,813

M.—Males F.—Females P.—Persons

DEATHS FROM DISEASES OF THE RESPIRATORY SYSTEM.

This group includes Laryngitis, Bronchitis, Pneumonia, Pleurisy, Asthma, etc.

156 deaths (84 males, 72 females) were referred to the group in 1937, as compared with 168, 117, 123, 127 and 155 respectively in the five preceding years.

Thus there was a considerable decrease from the high figure of the previous year.

79 deaths (42 males, 37 females) were ascribed to the different forms of Bronchitis, 72 (39 males, 33 females) to the various types of Pneumonia, and 5 (3 males, 2 females) to all the other varieties of Respiratory Diseases.

Each of these groups was below the previous year.

30 deaths occurred in February, 23 in January, 22 in March, and 21 in November.

The lowest months were : September 2, May and June 4 each, and July 8.

12 of the deaths were of persons under 5 years of age, as compared with 20 in the previous year.

AGE AND SEX DISTRIBUTION OF THE DEATH RATES FROM RESPIRATORY DISEASES PER MILLION LIVING.

Ages	—5.			—10.			—15.			—20.			—25.			—30.			—35.			—40.			—45.			—50.			—55.			—60.			—65.			—70.			+70.		
Periods.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.
1841—1880	13,134	11,117	12,140	572	796	685	215	201	208	265	427	353	506	311	396	626	499	556	1,042	596	798	1,478	911	1,177	1,567	982	1,248	3,275	1,264	2,195	4,137	2,014	2,985	6,277	4,461	5,290	6,456	7,098	6,813	12,887	10,626	11,648	20,901	18,354	19,410
1881—1900	13,671	9,837	11,733	540	485	514	112	173	143	252	167	206	304	259	279	776	343	539	587	393	483	1,401	826	1,094	1,737	929	1,303	2,436	1,495	1,925	3,687	1,818	2,671	5,293	3,346	4,219	9,527	4,978	6,969	11,979	11,576	11,752	21,421	20,548	21,049
1901—1910	8,777	8,337	8,541	380	379	380	115	27	70	153	135	157	247	122	180	418	96	242	527	494	507	637	398	508	868	317	576	1,580	902	1,216	2,369	1,329	1,798	3,036	2,057	2,507	4,040	4,300	4,191	7,353	5,852	6,430	19,288	18,130	18,606
1911—1920	8,167	5,643	6,900	387	503	445	110	241	176	269	190	227	214	324	273	277	338	309	393	98	239	609	705	662	1,198	635	895	1,022	522	755	2,153	754	1,409	3,266	1,772	2,470	4,876	2,796	3,720	9,274	6,632	7,896	19,978	19,810	19,870
1921—1930	4,360	3,252	3,825	248	274	260	55	106	81	172	157	164	226	105	159	325	175	246	460	153	295	584	446	511	718	469	587	1,139	582	851	1,398	851	1,110	1,784	1,383	1,568	3,420	2,244	2,777	5,821	5,084	5,409	19,536	18,696	19,020
1931—1935	2,015	2,728	2,365	55	161	109	112	—	55	221	150	184	235	—	106	113	213	165	387	113	242	142	183	164	726	126	405	363	613	492	1,344	359	828	1,995	1,129	1,536	3,110	1,327	2,132	4,292	4,741	4,542	16,964	16.405	16,665
1936	2,707	2,806	2,755	267	260	263	272	—	134	—	—	—	284	—	128	—	—	—	—	—	—	687	591	635	351	305	326	1,405	989	1,190	764	695	728	876	3,120	2,063	4,456	3,668	4,024	8,154	6,466	7,213	24,705	20,198	21,980
1937	2,400	829	1,628	—	—	—	—	—	—	—	—	—	279	—	126	811	—	393	—	—	—	—	291	156	346	602	482	1,384	—	670	1,506	—	717	1,727	1,921	1,830	3,293	4,516	3,964	7,304	4,632	5,812	23,242	15,557	18,595

M.—Males F.—Females P.—Persons

The general facts in connection with the Respiratory Death-Rates are given in this Table :—

Periods.	Diseases of the Respiratory System.						
	Deaths			Death-Rates.			Male deaths per 1,000 Female deaths.
	M.	F.	P.	M	F.	P.	
1841—1850	502	471	973	3.68	3.06	3.35	1,065
1851—1860	636	558	1194	3.84	2.96	3.37	1,139
1861—1870	704	657	1361	3.67	3.05	3.37	1,071
1871—1880	832	754	1586	3.81	3.03	3.39	1,103
1881—1890	924	802	1726	3.65	2.78	3.19	1,152
1891—1900	1063	918	1981	3.67	2.77	3.18	1,158
1901—1910	788	795	1583	2.38	2.13	2.24	991
1911—1920	852	820	1672	2.34	2.03	2.18	1,040
1921—1930	718	774	1492	1.83	1.75	1.79	927
1841—1845	202	161	363	3.17	2.23	2.67	1,254
1846—1850	300	310	610	4.13	3.78	3.95	967
1851—1855	320	284	604	4.00	3.14	3.54	1,126
1856—1860	316	274	590	3.70	2.81	3.22	1,153
1861—1865	353	339	692	3.88	3.25	3.54	1,041
1866—1870	351	318	669	3.62	2.87	3.22	1,103
1871—1875	384	346	730	3.67	2.90	3.27	1,109
1876—1880	448	408	856	3.92	3.15	3.51	1,098
1881—1885	453	406	859	3.69	2.91	3.28	1,115
1886—1890	471	396	867	3.62	2.66	3.10	1,189
1891—1895	591	494	1085	4.25	3.06	3.63	1,196
1896—1900	472	424	896	3.14	2.48	2.78	1,113
1901—1905	378	402	780	2.35	2.21	2.28	940
1906—1910	410	393	803	2.41	2.06	2.23	1,043
1911—1915	465	381	846	2.59	1.91	2.23	1,220
1916—1920	387	439	826	2.11	2.14	2.13	881
1921—1925	347	392	739	1.81	1.82	1.81	885
1926—1930	371	382	753	1.84	1.69	1.76	971
1931—1935	312	361	673	1.47	1.52	1.50	864
1931	70	81	151	1.69	1.74	1.72	864
1932	60	95	155	1.43	2.02	1.74	631
1933	63	64	127	1.49	1.36	1.42	984
1934	63	60	123	1.48	1.26	1.36	1,050
1935	56	61	117	1.29	1.26	1.28	918
1936	87	101	188	1.99	2.06	2.03	861
1937	84	72	156	1.89	1.45	1.66	1,166

M.—Males F.—Females P.—Persons

Thus the Respiratory Mortality for the year was close to the average of the last 10 years.

The Seasonal nature of the Mortality from Respiratory diseases is shown as follows :—

QUARTERLY RESPIRATORY DEATH-RATES PER MILLION LIVING.

Periods	March	June	September	December
1841—1850	5,213	2,978	1,891	3,384
1851—1860	4,963	3,473	1,698	3,431
1861—1870	5,100	3,071	1,991	3,392
1871—1880	5,240	3,030	1,490	3,874
1881—1890	4,857	2,823	1,550	3,579
1891—1900	5,425	2,737	1,411	3,265
1901—1910	3,748	1,918	1,064	2,328
1911—1920	3,798	1,947	872	2,154
1921—1930	3,430	1,321	734	1,712
1931—1935	2,825	1,166	683	1,367
1936	3,698	1,697	1,032	1,721
1937	3,240	940	803	1,690

Age and sex distribution of the Death Rates from Respiratory Diseases per million living.

Age has a profound significance in relation to Respiratory Diseases. This group, in broad general terms, is fatal to the young and to the old.

This point is illustrated in the annexed Table :—

I emphasise the great decline in the mortality from Respiratory Diesases amongst people under 40 years of age, but especially those under 5 years.

Over 40 years of age, the Mortality experience at the various age periods also shows improvement, which naturally enough diminishes as age advances.

Over 70 years of age the average Respiratory Mortality rates show no variation of importance over the whole period of nearly a century.

DEATHS FROM DISEASES OF THE CIRCULATORY SYSTEM.

(a) Diseases of the Heart.

219 deaths (99 males, 120 females) were ascribed to Diseases of the Heart in 1937, as compared with 226, 230, 201, 229 and 194 respectively in the five preceding years.

There was therefore little change in 1937.

The details show that 36 deaths (20 males, 16 females) were ascribed to Chronic Endocarditis, as compared with 35 in 1936.

147 deaths (59 males, 88 females) were referred to Degeneration of the Heart, as compared with 126 in the previous year.

25 deaths (15 males, 10 females) were certified as due to the Angina group, as compared with 38 in 1936.

The group, Diseases of the Heart, is one of the best examples in the whole range of vital statistics of the influence of vogue, or in other words, of the effects of a change in the fashion of death certification. For long, practitioners were satisfied to ascribe certain deaths simply to senile decay. This is no longer fashionable, practitioners preferring to certify death as due to Myocardial Degeneration as the primary cause, with Senility as the secondary. This is probably nearer the truth than simple senile decay, and vitiates nothing so long as we know the value to be attached to the Certificate.

If we are sufficiently ignorant to be able to regard these certificates as valid evidence of an actual increase in Diseases of the Heart, any conclusions arrived at are necessarily valueless.

The interpreter of vital statistics requires to know a great deal more than 2 and 2 added together to make 4. He must be equipped with wide medical knowledge thoroughly up to date, and he requires to know the individual tendencies of the practitioners whose certificates he classifies.

Armed with this equipment his statistics acquire a new and unique value, approximating more and more closely to the truth.

The significance of the fact that of the 147 deaths from Myocardial Degeneration in 1937, 139 were of persons over 60 years of age, is greatly enhanced by the fact that as the deaths from Senility have decreased, the deaths from Myocardial Degeneration and Senility have increased, although the relationship is not exact.

These facts justify the conclusion that the increase recorded in diseases of the heart of recent years represents merely a change in death certification, the effect of which is to transfer to diseases of the heart, conditions formerly included in other groups, chiefly such vague groups as Senility and Cardiac Failure. The certification of Cardiac Failure as the disease causing death is meaningless, and I am glad to write, has practically disappeared in favour of some of the forms of Heart Disease.

(b) DEATHS ASCRIBED TO ARTERIO SCLEROSIS.

32 deaths (19 males, 13 females) were ascribed to this group in 1937, a figure below the average of recent years.

The Table explains itself :—

Periods.	Arterio-Sclerosis.				Total.	
	With a Cerebral Lesion		Without a Cerebral Lesion			
	Numbers.	Rates.	Numbers.	Rates	Numbers.	Rates.
1921—1930	96	.11	76	.09	172	.20
1921—1925	22	.05	29	.07	51	12
1926—1930	74	.17	47	.11	121	28
1931—1935	154	34	45	.10	199	.44
1931	15	.17	5	.05	20	22
1932	42	.47	18	.20	60	67
1933	29	.32	5	.05	34	.38
1934	30	33	7	.07	37	41
1935	38	.41	10	.09	48	.52
1936	31	33	3	.03	34	.36
1937	29	.30	3	03	32	34

This group is another illustration of the effects of transfer from one group to another. In the 19th Century the group did not exist as an appreciable cause of death, although Arterio Sclerosis was just as prevalent then as it is to-day. In those days the deaths nowadays associated with the condition were found in the Cerebral Hæmorrhage, Cerebral Thrombosis, and Embolism groups. The consequence is that the group we are considering has been formed at the expense of these other groups of diseases. It is a new grouping of old diseases, which has the merit at least of being a more accurate statement of the real conditions causing death.

The chief member of the Arterio Sclerosis group of causes of death is Cerebral Hæmorrhage, for the simple reason that it is the rupture of a diseased artery which is the cause of the Hæmorrhage. Healthy arteries do not rupture.

The true scientific conception of Cerebral Hæmorrhage is that it is the most disastrous symptom of the diseased state of the arteries of the brain.

(c) TOTAL DEATHS FROM DISEASES OF THE CIRCULATORY SYSTEM.

Table showing the decennial and quinquennial distribution of the deaths and death-rates from Diseases of the Heart, and the Blood Vessels :—

Periods.	Deaths and Death-rates of persons from Diseases of the Circulatory System.						
	Number of Deaths.				Death-rates per 1,000 living.		
	Heart Diseases.	Arterial Diseases.	All Others.	Total.	Heart Diseases.	Arterial Diseases.	All Circulatory Diseases.
1841-1850	146	19	23	188	.503	.065	.648
1851-1860	235	38	11	284	.665	.107	.803
1861-1870	378	52	19	449	.937	.129	1.113
1871-1880	536	61	11	608	1.147	.130	1.301
1881-1890	579	68	9	656	1.071	.125	1.213
1891-1900	742	85	9	836	1.194	.136	1.345
1901-1910	795	71	13	879	1.128	.100	1.254
1911-1920	1,010	155	14	1,179	1.321	.202	1.542
1921-1930	1,158	238	21	1,417	1.389	.285	1.700
1841-1845	57	9	18	84	.420	.066	.619
1846-1850	89	10	5	104	.576	.064	.673
1851-1855	120	18	4	142	.704	.105	.833
1856-1860	115	20	7	142	.629	.109	.776
1861-1865	181	37	8	226	.926	.189	1.157
1866-1870	197	15	11	223	.949	.072	1.074
1871-1875	249	31	6	286	1.115	.138	1.281
1876-1880	287	30	5	322	1.179	.123	1.323
1881-1885	287	26	7	320	1.096	.099	1.220
1886-1890	292	42	2	336	1.045	.150	1.202
1891-1895	341	39	4	384	1.142	.130	1.286
1896-1900	401	46	5	452	1.247	.143	1.405
1901-1905	373	35	7	415	1.092	.102	1.215
1906-1910	422	36	6	464	1.173	.100	1.289
1911-1915	515	85	6	606	1.359	.224	1.602
1916-1920	495	70	8	573	1.277	.180	1.476
1921-1925	486	81	7	574	1.195	.199	1.412
1926-1930	672	157	14	843	1.572	.367	1.972
1931-1935	1,053	247	23	1,323	2.355	.552	2.959
1936	226	41	7	274	2.446	.443	2.965
1937	219	36	7	262	2.333	.383	2.791

This shows in a graphic manner the large increases that have taken place in the group within the present century chiefly. It shows that the death-rate from Diseases of the Heart has doubled since the beginning of this century, and that the increase in the death-rate from Arterial Diseases is much greater.

I have pointed out that neither of these increases is real in the sense that they represent variations in the disease conditions concerned.

They are, on the contrary, excellent examples of the influence of transfer from indefinite to more definite conditions.

VIOLENCE.

The decennial and quinquennial deaths and death-rates from Violence are shown thus :—

Periods.	Number of Deaths.			Death-Rates per 1,000 living.		
	Males	Females	Persons	Males	Females	Persons
1841—1850	122	39	161	.89	.25	.55
1851—1860	146	72	218	.88	.38	.61
1861—1870	168	58	226	.89	.26	.56
1871—1880	169	52	221	.77	.20	.47
1881—1890	190	68	258	.75	.23	.47
1891—1900	227	98	325	.78	.29	.52
1901—1910	242	111	353	.73	.29	.50
1911—1920	268	146	414	.74	.36	.54
1921—1930	247	130	377	.62	.29	.45
1841—1845	49	20	69	.77	.27	.50
1846—1850	73	19	92	1.00	.23	.59
1851—1855	73	33	106	.91	.36	.62
1856—1860	73	39	112	.85	.40	.61
1861—1865	91	23	114	1.00	.22	.58
1866—1870	77	35	112	.79	.31	.53
1871—1875	82	20	102	.78	.16	.45
1876—1880	87	32	119	.76	.24	.48
1881—1885	93	32	125	.75	.23	.47
1886—1890	97	36	133	.74	.24	.47
1891—1895	97	40	137	.69	.24	.45
1896—1900	130	58	188	.86	.33	.58
1901—1905	120	55	175	.74	.29	.51
1906—1910	122	56	178	.71	.29	.49
1911—1915	137	68	205	.76	.34	.54
1916—1920	131	78	209	.71	.38	.53
1921—1925	113	58	171	.59	.27	.42
1926—1930	134	72	206	.66	.32	.48
1931—1935	145	67	212	.68	.28	.47
1936	32	13	45	.73	.26	.48
1937	30	16	46	.67	.32	.49

46 deaths (30 males and 16 females) were ascribed to violence in 1937, as compared with 45, 30, 41, 49 and 49 respectively in the 5 preceding years.

15 of these deaths were due to suicide (11 males, 4 females). This compares with 14 suicides in 1936 and 8 in 1935.

4 suicides were due to coal-gas poisoning (all males). 3 (1 male, 2 females) were due to hanging; and 3 (2 males, 1 female) to drowning.

I have commented in previous Reports on the increase in Suicides of recent years, and the year under review merely emphasises the fact.

11 deaths (4 males, 7 females) were due to accidental falls of various kinds. This is higher than usual, the chief reason being the high proportion of old women sustaining fractures of the femur in consequence of falls in their homes.

10 deaths (7 males and 3 females), were due to vehicular violence in 1937, as compared with 14 in 1936 and 8 in 1935.

5 of these (3 males, 2 females) were due to collisions in which private motor-cars were concerned; 1 (male) to a collision with a motor refuse waggon; 1 (female) with a motor-omnibus; 1 (male) with a trolley-'bus; 1 (male) with a railway train; and 1 (male) with a pedal cycle.

Since their introduction in 1923, the trolley-'buses have been responsible for 15 deaths. The reasons for this are the size of the 'buses, the narrowness of the streets, the speed of the 'buses, and their silence, coupled with the contributory negligence of the majority of the victims.

The average number of street fatalities in Ipswich thus remains at about 10 per annum.

Since the beginning of this century 157 inhabitants have been killed in motor accidents of various kinds. Of these 66 were caused by private motor-cars.

It is of some interest that there were no fatalities associated with motor-cycles in 1937, the number of victims due to motor-cycles since 1901 remaining at 38.

For the same period, the fatalities due to motor lorries were 34, motor-'buses 10, and taxis 8.

PUERPERAL MORTALITY.

7 deaths were associated with Pregnancy and Childbirth in 1937, as compared with 8 in 1936 and an average of 5 for the quinquennium 1931-1935.

The Maternal Mortality rate was thus equal to 5.02 per 1,000 births. This figure is above the average.

2 of the deaths were referred to Puerperal Hæmorrhage, 2 to Puerperal Convulsions, and one each to Toxæmia of Pregnancy other than Albuminuria, Puerperal Sepsis and Puerperal Embolism.

The Puerperal death-rates per 1,000 births are set forth in the Table :—

Periods.	Puerperal Fever.	Puerperal Hæmorrhage.	Puerperal Convulsions	All other Conditions.	Total all causes.	
					No.	Rates.
1841—1850	1.81	.42	.53	1.71	42	4.47
1851—1860	1.00	.17	1.00	1.60	45	3.77
1861—1870	.90	.45	.52	1.51	45	3.38
1871—1880	1.53	.57	.25	1.72	64	4.09
1881—1890	2.16	.52	.41	1.41	77	4.50
1891—1900	1.57	.50	.22	1.92	75	4.21
1901—1910	.63	1.07	.63	1.44	70	3.72
1911—1920	1.39	.60	.97	1.33	71	4.29
1921—1930	2.20	.53	.66	.66	61	4.06
1931 – 1935	1.34	.29	.29	1.64	24	3.57
1921	1.74	—	—	1.74	6	3.46
1922	.63	—	1.89	.63	5	3.15
1923	1.29	—	—	.64	3	1.93
1924	1.39	—	.69	.69	4	2.79
1925	2.81	.70	—	—	5	3.52
1926	1.94	.65	1.94	1.30	9	5.84
1927	2.11	1.41	.71	.71	7	4.94
1928	4.91	2.81	.70	—	12	8.42
1929	2.08	—	.69	—	4	2.77
1930	3.40	—	—	.68	6	4.08
1931	1.45	—	—	.73	3	2.18
1932	—	.73	.73	2.20	5	3.66
1933	1.56	.78	.78	.78	5	3.92
1934	4.64	—	—	1.54	8	6.19
1935	.71	—	—	1.42	3	2.13
1936	1.45	1.45	1.45	1.45	8	5.80
1937	.71	1.43	1.43	1.43	7	5.02

The statistical side of this study is further illustrated in the Table showing Puerperal Mortalities in terms of death-rates of women aged 15-45 years of age:—

Periods.	Number of Deaths.	Death-rates per 1,000 women living 15-45 years of age.
1841—1850	42	.549
1851—1860	45	.504
1861—1870	45	.449
1871—1880	64	.564
1881—1890	77	.580
1891—1900	75	.477
1901—1910	70	.394
1911—1920	71	.373
1921—1930	61	.299
1841—1845	18	.501
1846—1850	24	.592
1851—1855	18	.419
1856—1860	27	.582
1861—1865	25	.509
1866—1870	20	.391
1871—1875	32	.586
1876—1880	32	.543
1881—1885	33	.518
1886—1890	44	.638
1891—1895	46	.612
1896—1900	29	.353
1901—1905	35	.402
1906—1910	35	.386
1911—1915	33	.352
1916—1920	38	.394
1921—1925	23	.231
1926—1930	38	.365
1931—1935	24	.219
1936	8	.354
1937	7	.305

Thus it appears that the maternal deaths per 1,000 births show little variation over the period of 97 years comprised in the Table, whereas the danger of death from Puerperal causes at the ages at which women are exposed to the risk have undergone substantial reduction, and at the present time compare favourably with past experience.

The figures given in these Tables have been extracted with a great deal of care and can be accepted as a true statement of the case so far as can be ascertained from the returns of deaths.

They can, therefore, be viewed as establishing the minimum Maternal Mortality rates.

I am glad to note that the campaign for the reduction of Maternal Mortality appears, at the moment at least, to be carried on with some consideration for the Psychology of the pregnant woman. As originally conducted it was simply an outrage. Women should be encouraged to bear children, not terrified by hysterical talk about the dangers of childbearing.

The fact is that though our statistics are true so far as they go, they do not tell the whole truth about the past, and it is safe to say that no series ever will.

Of one thing I am quite certain, and that is that the risks of childbirth to-day are far lower than they ever have been.

I do not suggest that the position is incapable of improvement, because that would be quite at variance with the facts, but I do claim that, with our Infant Welfare Centres, Ante and Post-Natal Clinics, Maternity Homes, improved Midwives and Maternity nursing services, and a more alert Medical profession, we have made very substantial progress indeed.

These are the agencies to present the true case to the women concerned. The public Press is not the proper vehicle for propaganda of this kind.

INFANT MORTALITY.

The Table gives the numbers of Infant deaths and the Infant Mortality rates since 1841 :—

Period	No of Deaths			Infant Death Rates.						Female Infant Deaths per 1,000 Male.
	Males.	Fmls.	Infants	Males.		Females.		Infants.		
				Ips.	E.&W.	Ips.	E.&W.	Ips.	E.&W.	Ipswich.
1841—1850	913	743	1,656	190	167	161	137	176	153	812
1851—1860	1,122	931	2,053	184	168	159	139	172	154	829
1861—1870	1,141	982	2,123	167	168	151	139	159	154	861
1871—1880	1,369	1,024	2,393	171	163	134	134	152	149	748
1881—1890	1,327	1,004	2,331	153	155	118	128	136	142	756
1891—1900	1,582	1,181	2,763	174	168	135	138	155	153	746
1901—1910	1,322	1,044	2,366	138	140	113	114	126	128	789
1911—1920	889	615	1,504	105	112	76	89	91	100	691
1921—1930	496	343	839	65	81	46	63	56	72	691
1841—1845	361	296	657	176	162	143	133	160	148	815
1846—1850	552	447	999	201	172	175	142	188	157	809
1851—1855	550	453	1,003	188	172	158	141	173	156	823
1856—1860	572	478	1,050	180	166	160	137	171	152	835
1861—1865	567	492	1,059	171	166	156	136	164	151	867
1866—1870	574	490	1,064	164	170	146	142	155	157	855
1871—1875	647	487	1,134	169	167	133	138	152	153	752
1876—1880	722	537	1,259	172	159	135	130	154	145	744
1881—1885	647	496	1,143	152	152	117	125	134	139	766
1886—1890	680	508	1,188	155	159	119	131	138	145	747
1891—1895	763	559	1,322	171	165	128	135	150	151	732
1896—1900	819	622	1,441	177	170	141	141	160	156	759
1901—1905	763	605	1,368	155	151	128	124	142	138	792
1906—1910	559	439	998	119	129	97	105	109	117	785
1911—1915	525	365	890	115	121	85	97	101	110	695
1916—1920	364	250	614	92	101	65	79	78	90	686
1921—1925	274	197	471	71	86	50	66	61	76	718
1926—1930	222	146	368	58	77	41	59	50	68	657
1931—1935	148	159	307	43	70	48	54	45	62	1074
1911	99	82	181	107	142	96	117	102	130	891
1912	120	75	195	135	106	87	84	112	95	625
1913	109	65	174	119	120	74	96	96	108	596
1914	101	87	188	108	116	100	93	104	105	861
1915	96	56	152	117	123	70	96	94	110	583
1916	78	57	135	90	102	71	80	81	91	730
1917	71	48	119	107	108	73	85	90	96	760
1918	66	49	115	94	108	71	86	83	97	742
1919	59	41	100	89	100	58	78	70	89	694
1920	90	55	145	89	90	55	69	72	80	611
1921	70	58	128	83	93	65	72	74	83	828
1922	38	47	85	49	87	58	66	54	77	1236
1923	52	27	79	66	78	35	60	51	69	519
1924	49	26	75	67	85	37	65	52	75	530
1925	65	39	104	93	84	54	66	73	75	600
1926	46	24	70	59	79	31	61	45	70	521
1927	51	41	92	69	79	59	60	65	70	803
1928	46	23	69	59	74	35	56	48	65	500
1929	44	32	76	60	83	44	65	52	74	727
1930	35	26	61	45	68	37	51	41	60	742
1931	46	36	82	65	75	53	57	59	66	782
1932	22	40	62	32	73	57	56	45	65	1818
1933	30	29	59	45	72	47	55	46	64	966
1934	33	27	60	50	65	42	51	46	59	818
1935	17	27	44	24	64	38	50	31	57	1588
1936	36	26	62	51	—	38	—	45	59	722
1937	26	20	46	35	—	30		33	58	769

The Infant Mortality rate for 1937 was the lowest on record, with the exception of that of 1935. The female Infant Mortality rate was, in fact, the lowest on record and, as the behaviour of the female death-rate at all ages is a pointer to the subsequent position of the male death-rate, we can reasonably expect that in the near future the male death-rate will reach the same level.

It is impossible to regard these figures without satisfaction. They are amongst the lowest, if not actually the lowest, of the industrial towns of England and Wales. In the middle of the nineteenth century the Infant Mortality rate of Ipswich was notorious, and our Table shows that it did not fall below 150 per 1,000 Births until after 1880, and that in the last five years of the nineteenth century it stood at an average of 160 per 1,000 Births. At that time there was no attempt to deal directly with the problem, but there is evidence that the attack on environmental insanitary conditions, which was the preoccupation of the Sanitary Authorities of those days, had produced some effect on the Infant Mortality rate.

The Table shows that the average annual number of Infant deaths exceeded 200 from 1851-1910, varying from 205 per annum in 1851-1860, to 276 per annum in 1891-1900. This compares with an average of 61 deaths per annum in the five years ending 1935, and of 54 per annum in the last two years.

The highest number of deaths in any year in the series was registered in 1895 (339 deaths), followed by 1899 (331 deaths) and 1901 (320 deaths). This century, therefore started off very badly indeed.

The last year in which the number of Infant deaths exceeded 200 was in 1906, when the deaths numbered 272.

As to the Infant death-rates, the highest rate recorded was in 1846, when the rate was equal to 250 per 1,000 Births. Rates of 180 and 190 were quite common events in the last century, as, for example, in 1899, with a rate of 185 per 1,000 Births, and 1895, with 181 per 1,000 Births.

In this century the highest Infant death-rates were 168 in 1901, 144 in 1905, and 142 in 1906.

The direct campaign against Infant Mortality began in Ipswich in 1907, and the first Infant Welfare Visitor was Miss A. Wynne, to whose indomitable energy and pluck was due the breaking down of the deep-rooted prejudice which accepted the appalling figures I have quoted as the normal expectation. The fact that she experienced violent physical assault on more than one occasion made no difference to her determination, and she won through in the end, but at the cost of her own health.

In the early days of our work the New Zealand Infant death-rate of 71 was the goal. It says much for the soundness of our methods that the Infant Mortality rate of this old town has followed the New Zealand rate, and in the years 1935 and 1937 equalled it. This is a great achievement, and reflects high credit upon the work of Dr. Jolly and her staff of nurses. Their work has been to educate the mothers in the rearing of their Infants, and the success of their efforts is shown by the success achieved by the Mothers. In 1901 the Infant Mortality rate was 168, in 1937 it fell to 33, a decline of more than 80%. Truly a remarkable fact.

It may be well to draw attention to the fact that the present slum campaign could have had no influence upon the Infant death-rate of 1935 The Infant death-rate has fallen to its present level in spite of the existence of large populations living under slum conditions.

In some quarters it is argued that the saving of Infant life in consequence of the fall in the death-rate of Infants connotes the preservation of the unfit. I have contradicted this view on several occasions in these Reports, and I take this last opportunity to contradict it again. I consider it a gratuitous assumption, based upon gross misreading of the actual facts of the case.

As usually stated by this school of thought, the declining birth-rate is taken as the basic point in the argument. On this point at least their assertion is fact. They say that the decline in the birth-rate is most in evidence amongst the class which they term to be the best in the community, intellectually and physically, and least amongst the class of the community which they describe as the "unfit," and from this they argue (making use of a mental process of remarkable agility), that the population is to a large extent being recruited from those sections of the race least qualified to produce a healthy stock.

From first to last these statements can only be described as simple assertion, there being no evidence that they are, in fact, true. They are, as I have said before, more or less gratuitous assumptions. I ask, what is the evidence that those who are termed the higher classes of the community are, in fact, the most satisfactory persons, intellectually and physically, from whom to breed the race? I think very little inquiry will throw grave doubt upon the accuracy of this assertion. On the other hand, again, what is the evidence that the poorer sections of the community are the most unfit, either physically or mentally? I grant that environmental conditions amongst the poorest sections of the community are unsatisfactory and prejudicial to the health of growing children, but the Slum Campaign which is approaching completion will remove a very large part of this environmental disability in those areas in which a real attempt has been made to solve the slum problem.

I also grant that the rearing of strong healthy children cannot be accomplished on a family income insufficient to supply adequate nutrition to the members of the family. This is a state of affairs which can be remedied by appropriate measures, directed towards the establishment of a proper balance between earnings and family needs.

The Slum Campaign was only rendered possible by the growth of irresistible public opinion.

The same power can overcome the maladjustment at present existing between earnings and needs as soon as it has acquired the necessary momentum. When this has been accomplished the question of the adequate nutrition of the young of the population will be answered, in the same way as the slum problem has been answered.

The bearing of these factors upon the question before us is as follows :—

In the first place, the influence of environmental and nutritional factors come into play after birth.

In the second place, it is a fundamental law of nature, which is usually entirely ignored, that the parent is sacrificed to the needs of the growing infant before it is born, and after birth, as long as the mother feeds the infant.

The consequence of this last is that the vast majority of infants, irrespective of the social class to which the parents belong, are born healthy, and, if given a fair chance, will grow and develop into ordinary healthy citizens.

Therefore the remedy is as plain as possible, and implies that every citizen shall live in a healthy house in a healthy environment, and be in an economic position such as to enable him to receive adequate nourishment. Given these conditions, *the intrinsic qualities of our racial heritage will ensure the production of healthy stock from all sections of the community.*

In considering the breeding of the race, there are two main issues to be borne in mind, the development of the physical side, and the development of the mental side.

We have already said that the vast majority of infants are born physically healthy, and that given a suitable environment and suitable conditions of life, the physical side can be expected to achieve an average racial result. The meaning of this is that physical development, in the vast majority of instances, is dependent upon conditions subsequent to birth.

The mental side is quite different. When a child is born, his mental potential is determined. It is true that mental capacities can be trained if the necessary mental equipment exists, but if at the outset of life the mental equipment is deficient, the individual remains mentally deficient throughout life, irrespective of social position or any other factor.

In other words, the mentally deficient are born, the physically deficient, in the vast majority of cases, are made. This distinction is vital to a complete understanding of the whole problem.

It is alleged that mental deficiency is on the increase. Again I question the validity of the evidence upon which this assumption is made. The facts are that no real attempt has ever been made in this country to ascertain the extent of mental deficiency. In certain areas, such as Ipswich, more progress has been made than in most other parts of the country, and the facts collected indicate that no one is in a position to make any definite statement about the prevalence of mental deficiency in the absence of any real attempt at ascertainment.

In this relation sterilisation of the mentally deficient has been advocated and proclaimed as a step which must result in the course of time in the elimination of mental deficiency. Those who make claims of this kind know nothing of the problem. Mental deficiency is not confined to the offspring of Mental Defectives. It appears in all sections of the community, and persons of poor mental quality, as well as mental deficients, are proportionally as common in the upper classes of society as they are at the bottom of the list. Anyone who cares to observe, and who has some knowledge of the subject, can satisfy himself upon this point without difficulty.

These comments will, I think be sufficient to indicate that wild and haphazard statements of the kind under criticism would be far better left unmade.

From our observations in our schools and in our clinics, there is no evidence whatever that there is either an increase in mental deficiency in this area, or in physical insufficiency. So far as the physical side of the question is concened, the answer is a definite and emphatic negative.

Turning to the Table facing page 92 of this Report, we find that the age distribution of the existing Infant Mortality shows that it is the unfit who die. This is the real truth, and this is the meaning of the excessive mortality of the first four days of life, of the first month of life, and of the excess which continues until the end of the third month. These are the real " unfit " who die, in the vast majority of cases, because they are unfit to survive even under existing conditions of environment and management. It is true that at all periods under one year the mortality experience of to-day is much lower than it was in, shall we say, the closing years of the last century, and that the improvement is least at the lowest ages. At all ages under one year Infant Mortality is, as we have shown, at the present time, roughly speaking, a quarter of what it was in the middle of the last century. On the other hand, the Infant Mortality under one month has fallen only to about one half of what it was in the same period of the nineteenth century.

I consider that these figures justify the contention that it is the " unfit " who fail to survive the third month of life, and that the large reductions which have taken place in the mortality experience over the third month represent the saving of the lives of large numbers of fit infants who would have succumbed if the conditions of their environment and upbringing had been the same as prevailed in the last century and the beginning of this.

The suggestion that in the past it was only the unfit infants who died has only to be mentioned to be dismissed as ridiculous. By far the greater part of the Infant Mortality of the past was made up of healthy infants with a reasonable chance of survival, had the conditions of their life been such as to promote their welfare. Much of the argument which we hear is based upon faulty reasoning, the argument lying from the particular to the general, certain isolated cases being picked out to provide the text from which to formulate conclusions.

The Infant Mortality Table for 1937 is very similar to that of the previous year. I draw particular attention to the fact that the group of the seven principal Zymotic diseases can be said to have practically disappeared. There were only four deaths in this group in 1937. Nowadays this is not an uncommon experience. Some idea of the extent of the change which has taken place within recent years will be gathered from the fact that the Infant death-rate from the seven principal Zymotic diseases averaged 2.53 per 1,000 births in the period 1931-1935, as compared with 52.3 in the closing quinquennium of the nineteenth century.

Another remarkable feature is the decline in the Infant Mortality from tuberculosis under one year. There was one death from cerebral

AGE DISTRIBUTION OF THE INFANT DEATH-RATES.

	0—1 week.			0—1 month.			0—3 months.			3—6 months.			6—9 months.			9—12 months.			—1 year.		
	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.
1841—1850	28.64	29.08	28.85	54.19	47.52	51.00	96.38	81.81	89.23	39.72	32.33	36.09	34.07	29.08	31.62	20.69	18.01	19.38	190	161	176
1851—1860	29.56	24.67	27.16	50.59	40.94	45.87	87.87	74.18	81.17	39.91	35.12	37.56	30.88	24.15	27.58	25.62	26.04	25.82	184	159	172
1861—1870	29.09	20.80	25.05	50.11	38.84	44.61	80.82	72.90	76.95	36.59	30.82	33.77	29.09	24.35	26.78	21.16	23.27	22.19	167	151	159
1871—1880	26.23	16.17	21.33	47.22	31.81	39.71	78.82	55.61	67.51	34.60	32.47	33.56	31.23	24.58	27.99	26.35	21.95	24.21	171	134	152
1881—1890	28.07	20.62	24.38	45.24	33.47	39.40	74.83	55.03	65.01	29.70	23.80	26.77	26.68	18.97	22.86	22.74	20.50	21.63	153	118	136
1891—1900	27.60	20.50	24.12	47.36	35.39	41.49	84.45	63.92	74.38	37.86	28.64	33.34	28.48	24.40	26.48	23.84	18.32	21.13	174	135	155
1901—1910	30.46	22.68	26.65	51.11	39.07	45.21	79.49	61.55	70.69	23.88	19.75	21.86	19.92	15.95	17.98	14.60	16.06	15.32	138	113	126
1911—1920	26.07	19.87	23.03	41.25	31.35	36.40	62.35	45.79	54.23	15.52	11.11	13.36	15.17	10.44	12.75	12.32	8.76	10.58	105	76	91
1921—1930	24.46	15.54	20.06	33.81	23.52	28.73	46.69	30.96	38.93	7.23	5.27	6.26	5.65	5.00	5.33	5.52	5.28	5.40	65	46	56
1841—1845	26.52	22.37	24.43	52.06	42.80	47.40	96.26	71.98	84.06	32.41	35.02	33.72	30.45	23.34	26.88	18.17	13.61	15.88	176	143	160
1846—1850	30.21	34.48	32.27	56.06	51.33	53.78	96.46	89.73	93.22	45.14	30.17	37.93	36.76	33.70	35.28	22.57	21.55	22.07	201	175	188
1851—1855	32.60	25.48	29.07	51.81	40.50	46.20	93.34	73.67	83.59	41.18	35.96	38.59	31.22	25.13	28.21	22.99	23.39	23.19	188	158	173
1856—1860	26.78	23.88	25.37	49.46	41.37	45.55	82.86	74.67	78.90	38.75	34.30	36.60	30.56	23.20	27.00	28.04	28.59	28.30	180	160	171
1861—1865	26.29	22.90	24.64	48.36	41.34	44.94	81.31	77.92	79.66	33.85	29.89	31.92	31.74	23.53	27.74	24.48	25.12	24.79	171	156	164
1866—1870	31.74	18.83	25.43	51.75	36.48	44.29	80.35	68.18	74.40	39.17	31.69	35.52	26.59	25.11	25.87	18.01	21.53	19.73	164	146	155
1871—1875	26.43	15.35	21.02	47.90	30.44	39.37	82.98	52.66	68.17	31.93	33.18	32.54	32.98	24.95	29.06	21.46	22.76	22.10	169	133	152
1876—1880	26.04	16.91	21.60	46.59	33.08	40.02	75.02	58.33	66.91	37.03	31.81	34.49	29.62	24.24	27.01	30.82	21.21	26.15	172	135	154
1881—1885	25.83	19.85	22.85	43.91	34.27	39.11	72.80	57.68	65.26	31.47	21.98	26.74	26.06	18.43	22.26	21.60	19.14	20.38	152	117	134
1886—1890	30.26	21.38	25.88	46.54	32.66	39.69	76.81	52.40	64.76	27.97	25.61	26.81	27.28	19.50	23.44	23.84	21.85	22.86	155	119	138
1891—1895	29.47	21.06	25.17	50.00	35.72	42.92	88.43	61.07	74.92	35.32	27.19	30.51	26.32	20.28	23.33	21.60	20.28	20.95	171	128	150
1896—1900	25.80	20.04	23.00	44.88	35.08	40.11	80.66	66.74	73.88	40.33	30.06	35.33	30.57	28.47	29.51	26.01	16.40	21.44	177	141	160
1901—1905	30.20	27.54	28.90	54.49	45.56	50.11	85.31	70.56	78.09	30.20	22.03	26.20	23.06	17.37	20.27	17.14	18.22	17.67	155	128	142
1906—1910	30.72	17.58	24.29	47.57	32.27	40.08	73.39	52.08	62.96	17.28	17.36	17.32	16.64	14.46	15.57	11.94	13.80	12.85	119	97	109
1911—1915	30.12	22.00	26.16	45.52	33.48	39.74	69.40	48.00	58.95	16.29	13.81	15.08	18.07	12.17	15.19	13.39	11.47	12.45	117	85	101
1916—1920	21.49	17.48	19.52	36.41	28.97	32.74	54.36	43.33	48.96	14.66	8.09	11.43	11.88	8.09	10.01	11.12	5.74	8.47	92	65	78
1921—1925	25.33	17.25	21.26	35.24	25.75	30.47	52.22	34.00	43.05	7.05	5.92	6.48	6.01	5.40	5.70	6.26	5.40	5.83	71	50	61
1926—1930	23.58	13.66	18.80	32.33	21.06	26.90	41.08	27.61	34.58	7.42	4.55	6.03	5.30	4.55	4.94	5.04	4.83	4.94	58	41	50
1931—1935	15.61	16.91	16.25	25.33	26.58	25.95	32.69	34.44	33.40	4.71	3.62	4.17	2.06	6.34	4.17	4.12	3.62	3.87	43	48	45
1936	24.25	11.81	18.14	37.08	20.67	29.02	41.36	28.06	34.83	2.85	1.47	2.17	2.85	4.43	3.62	4.27	4.43	4.35	51	38	45
1937	19.02	10.65	15.07	21.73	18.26	20.10	24.45	24.35	24.40	5.43	1.52	3.58	4.07	3.04	3.58	1.35	1.52	1.43	35	30	33

M.—Males F.—Females P.—Persons

INFANT MORTALITY TABLE 1937

Cause of Death.	DAYS.																					WEEKS.												MONTHS.																																				—1 year.		
	1			2			3			4			5			6			7			1			2			3			4			1			2			3			4			5			6			7			8			9			10			11			12					
	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P	M	F	P
Measles																													1	1					1	1																																		—	1	1
Influenza																																																																					1	1	—	1	1
Cereb. T.																																																												1	1											—	1	1
Meningitis																																																							1		1													1	—	1
Bronchitis																									1		1							1		1																																		1	—	1
Pneumonia														1	1								1	1											1	1		1	1	1		1	2	1	3				1		1													1		1				5	3	8
Tonsillitis																																						1	1																																	—	1	1
Gastro Enteritis																									1		1							1		1																			1	1	2													2	1	3
Intussuseptier																																																				1		1																	1	—	1
Congenital Malformations ...							1		1										1		1	2		2										2		2	1	1	2		1	1																												3	2	5
Marasmus				1		1	1		1													2		2		1	1							2	1	3							1		1																									3	1	4
Prematurity	4	2	6	2	1	3	1		1							2	1	3				9	4	13		2	2		1	1				9	7	16																																			9	7	16
O.D. Early Infancy		1	1	1	1	2																1	2	3										1	2	3																																			1	2	3
TOTAL	4	3	7	4	2	6	3	—	3	—	—	—	—	1	1	2	1	3	1	—	1	14	7	21	2	3	5	—	2	2	—	—	—	16	12	28	1	3	4	1	1	2	3	1	4	—	—	—	1	—	1	1	—	1	2	1	3	—	1	1	—	—	—	1	—	1	—	1	1	26	20	46

M.—Males F.—Females P.—Persons

tuberculosis in 1937. I have already referred in the section dealing with tuberculosis to the change that has taken place in this relation.

At the present day the causes of Infant Mortality can be divided into two main groups. These are, firstly, prematurity, atrophy, etc., which nowadays provide about one half of the total mortality under one year, practically all of whom die under the age of three months. These are the "unfit" to whom reference has already been made. In 1937 this group accounted for exactly one half of the total Infant Mortality.

The next most important group consists of diseases of the respiratory system, bronchitis, and pneumonia. Of these, pneumonia is the more frequent, fatal bronchitis not being a disease of infancy. This may be to some extent a matter of more accurate certification. In 1937 the respiratory mortality was 6.46 per 1,000 births, a rate which compares very favourably with that of 24.1 in the closing quinquennium of the last century.

Congenital malformations bulk as a considerable contributor to the local Infant Mortality. Comparisons with the past are of little value, because of the unreliability of death certification of this particular group in the nineteenth century. It is sufficient to say that there is an increasing tendency to certify congenital malformations as a primary cause of infant death at the present day.

It is satisfactory to be able to report that suffocation in bed, which was a fairly frequent cause of infant death in former years, has now practically disappeared. Deaths from burns in infancy are also extremely uncommon, due to the disappearance of the paraffin lamp and the provision of fire guards.

Zymotic diarrhœa, the great menace to the life of the healthy infant of the nineteenth century, has, to all practical intents and purposes, disappeared. Such cases as do occur nowadays do not appear to belong to the epidemic variety, or at any rate their time of incidence does not correspond with that which was the characteristic of the epidemic type.

I have frequently expressed the view that the conditions which were the cause of the terrific epidemics of the past have been abolished, and thus it is possible to claim that this is one of the chief triumphs resulting from improved sanitation. Epidemic diarrhœa was the expression of the degree to which the sanitary state of the community was deficient. In former years Ipswich was notorious for its excessive diarrhœa prevalence, and it is something to be able to record that a group of diseases which killed innumerable perfectly healthy infants before the end of their first year of life has now practically ceased to exist.

Finally, I would remind readers that our race consists of many millions of people, and that, as a race, we stand high in the estimation of the world for our past record and our present status.

This does not suggest to my mind that we are a nation of mental or physical deficients.

In the last War, our people compared favourably with any other nation in the world, physically and mentally, especially mentally. We heard a great deal about C3 people in our country, and nothing about C3 people elsewhere, though they were quite as numerous.

There always have been degenerates in every race and every country, and there always will be, for the simple reason that a race numbering many millions must always have a substratum below standard value. This may be lamentable, but it is a fact of evolution. The great point is that nature works to the achievement of an average by the elimination of the unfit.

Our duty is to use the knowledge we possess to prevent the manufacture of the unfit after birth on account of economic or environmental disharmonies, and to guard the development of the unborn infant by care of the health and nutrition of the expectant mother.

The following Table compares the group causes of death since 1891-1895.

Causes of Death.	1891-1895.	1896-1900.	1901-1905.	1906-1910.	1911-1915.	1916-1920.	1921-1925.	1926-1930.	1931-1935.	1936.	1937.
7 Principal Zymotics ...	33.5	52.3	26.2	20.9	19.7	8.6	8.0	5.7	2.53	3.62	2.87
Other Infectious Diseases...	4.4	2.4	1.7	4.2	4.2	3.6	2.4	1.5	2.53	2.90	.71
Tuberculosis	3.8	3.8	3.0	3.3	2.3	2.9	.8	.8	.74	—	.71
Other General Diseases ...	.8	.2	.5	.6	.6	.5	.5	.5	.89	—	—
Diseases of Nervous System	12.3	10.6	10.2	7.8	5.8	4.9	3.5	1.5	.89	—	.71
,, ,, Circulatory ,,	.1	—	.1	—	.1	.1	—	.1	—	—	—
,, ,, Respiratory ,,	26.1	24.1	22.2	16.0	18.4	15,3	11.5	8.7	7.90	10.88	6.46
,, ,, Digestive ,,	1.1	1.3	.2	1.7	2.2	2.3	1.2	.9	1.34	—	1.42
,, ,, Genito-Urinary System	.1	.2	.3	.3	.1	.2	—	.1	—	—	—
,, ,, Skin & Cellular Tissue	.8	1.4	1.3	.4	.7	.2	.4	.1	.14	—	—
Congenital Malformations	2.8	1.7	2.6	3.1	4.7	4.0	4.6	5.4	6.11	2.90	3.58
Prematurity, Atrophy, etc.	61.5	56.8	68.6	46.8	40.3	33.0	26.1	23.4	21.17	24.67	16.51
Violence	1.5	2.9	3.0	2.1	1.9	2.7	1.9	.8	1.34	—	—
All Others	1.5	2.1	.7	1.2	.6	.3	—	.4	.14	—	—
TOTAL ...	150	160	142	109	101	78	61	50	45	45	33

STILLBIRTHS.

I insert the usual Table about Stillbirths :—

Year	Males		Females		Infants	
	No.	%	No.	%	No.	%
1927	18	4.5	9	2.6	27	3.6
1928	38	4.8	23	3.4	61	4.1
1929	40	5.3	29	3.9	69	4.6
1930	42	5.2	26	3.6	68	4.5
1931	27	3.7	23	3.3	50	3.5
1932	30	4.2	16	2.2	46	3.2
1933	26	3.7	25	3.9	51	3.8
1934	28	4.1	30	4.5	58	4.3
1935	31	4.2	26	3.5	57	3.9
1936	24	3.3	23	3.3	47	3.3
1937	22	2.9	21	3.1	43	3.0

The proportion of stillbirths was thus below the average, especially males.

Of the 43 Stillbirths registered in 1937, four were illegitimate, a proportion of 9.3%.

Our figures show that the proportion of stillbirths amongst legitimate infants in 1937 was 2.9%, as compared with 5.6% in the case of the illegitimate. The legitimate proportion is below the average, and the illegitimate above it.

In accordance with the usual custom, I give a Table in which the ante- (stillbirth) and post- (live birth) natal Infant Mortality rates are shown together.

The combination of the two with existing conditions of Infant Mortality about doubles the rate, and gives a more accurate impression of the true state of affairs.

Stillbirths and the mortality of the early weeks of life are closely linked together. Many stillborn infants die during the process of birth, and this particular group is very intimately connected with the excessive Infant Mortality of the first four days of life, to which attention has been drawn in these Reports for years.

Year	Death-rates of Infants								
	Males			Females			Infants		
	Ante-Natal	Post-Natal	Total	Ante-Natal	Post-Natal	Total	Ante-Natal	Post-Natal	Total
1928	48	59	106	34	35	68	41	48	89
1929	53	60	112	39	44	83	46	52	98
1930	52	45	96	36	37	73	45	41	85
1931	37	65	101	33	53	86	35	59	94
1932	42	32	74	22	57	79	32	45	76
1933	36	45	81	39	47	84	38	46	83
1934	41	50	91	45	42	87	43	46	89
1935	42	24	66	35	38	73	39	31	70
1936	33	51	84	33	38	71	33	45	78
1937	29	35	64	31	30	61	30	33	62

NOTIFICATIONS OF INFECTIOUS DISEASE.

The following Table gives the numbers of cases of Infectious Disease notified in Ipswich, together with the Notification Rates per 1,000 living in 1937, and the preceding eleven years.

Diseases Notified	1926—1930.		1931—1935.		1935.		1936.		1937	
	Nos.	Rates.	Nos.	Rates.	Nos.	Rates.	Nos.	Rates.	Nos.	Rates.
Chicken Pox ...	3596	8.43	1943	4.27	—	—	—	—	—	—
Diphtheria ...	472	1.10	914	2.01	163	1 78	123	1.33	16	.17
Scarlet Fever ...	983	2.29	1826	4.01	332	3.63	187	2 02	268	2.85
Pneumonia ...	484	1.13	435	.95	78	.85	78	.84	62	.66
Erysipelas ...	140	.32	203	.44	29	.32	59	.63	54	.57
Puerperal Fever ...	73	.17	100	.22	27	.29	13	.14	37	39
Puerperal Pyrexia	33	.07	41	.09	8	.09	9	.09		
Ophthalmia Neonatorum ...	52	.12	59	.13	11	.12	10	.10	8	.08
Enteric Fever ...	37	.08	63	.14	52	.57	3	.03	4	.04
Malaria	3	.006	2	.004	—	—	—	—	—	—
Dysentery ...	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica ...	13	.03	7	.015	1	.01	1	.01	1	.01
Anterior Poliomyelitis	8	.018	2	.004	—	—	—	—	10	.10
Cerebro-Spinal Fever	10	.02	5	.011	1	.01	—	—	1	.01
Acute Polio Encephalitis ...	1	.002	1	.002	—	—	—	—	1	.01
Small Pox ...	1	.002	—	—	—	—	—	—	—	—
Continued Fever	—		1	.002	—	—	—	—	—	—
TOTAL ...	5906	13.85	5602	12.49	702	7 68	483	5.22	462	4.92

The most notable features of this Table are the number of notifications of Scarlet Fever, the very low incidence of Diphtheria, and the rise in the number of cases of Infantile Paralysis (Anterior Poliomyelitis).

The notifications of Pneumonia do not represent the truth.

There was an increase in the notifications of Puerperal Infections as compared with 1936. Ophthalmia Neonatorum was below the average.

The Enteric group was about average.

Smallpox was absent once more.

PREVALENCE OF SCARLET FEVER.

268 cases were notified in 1937, the equivalent of an attack rate of 2.85 per 1,000 living.

The following Table summarises the facts as to the notifications of Scarlet Fever since the beginning of notification in 1891.

Periods.	Notifications.		Removals.		Case Fatality per cent.
	Numbers.	Attack Rates per 1,000 living.	Numbers.	Proportion per cent.	
1891—1900	2,654	4.29	993	37	1.9
1901—1910	1,126	1.60	880	78	1.3
1911—1920	2,683	3.51	2,070	77	1.6
1921—1930	1,562	1.87	1,423	91	.5
1891—1895	1,792	6.01	620	35	2.1
1896—1900	862	2.69	373	43	1.7
1901—1905	692	2.02	517	74	.8
1906—1910	434	1.20	363	83	2.1
1911—1915	2,065	5.45	1,513	73	1.8
1916—1920	618	1.59	557	90	.9
1921—1925	581	1.43	533	91	1.0
1926—1930	981	2.29	890	90	.3
1931—1935	1,826	4.08	1,699	93	.2
1931	495	5.64	461	93	.6
1932	346	3.92	324	93	3
1933	194	2.17	184	94	—
1934	459	5.11	421	91	—
1935	332	3.64	309	93	.3
1936	187	2.02	169	90	—
1937	268	2.85	258	96	—

Anyone who studies this Table will realise that the whole of the labour put into the prevention of Scarlet Fever for the last 47 years has failed to achieve any corresponding reduction in the prevalence of the disease, though there has been a very substantial reduction in the scarlatinal death-rate, which is reflected in a telling manner in the reduction of the case fatality per cent. The epidemiology of Scarlet Fever has been discussed fully in these reports, especially in that of last year. I will therefore content myself on this occasion with a brief summary of the main points.

1. Scarlet Fever is always present.

2. This is another way of stating the fact that the infection of the disease is constantly circulating amongst the community.

3. The infection lodges in the nose and throat of infected persons and is transferred from the naso-pharynx of the infected person to the noses and throats of other persons coming into sufficiently close personal contact.

4. The infection is given off from the infected person in the act of ordinary breathing, in which case the striking distance is short, but it is greatly increased by coughing or sneezing and, to a considerable extent, by speaking.

5. Therefore ordinary intercourse with an infected person in a shop, or any public place of entertainment, public vehicle, etc., etc., or in short, any place where people meet and crowd together, affords ample opportunity for the exchange of infections of various kinds from person to person.

6. An infected person shows no evidence of the infection unless he develops the disease, but he is just as capable of spreading the infection as an actual sufferer from Scarlet Fever, though the dose is probably considerably less.

7. Scarlet Fever is now known not to be, if one may so put it for the purpose of clarity, a single disease, but a group of closely allied diseases caused by a group of closely allied germs. This fact explains many apparently contradictory phenomena, and is fundamental to a proper appreciation of the whole position. Thus it explains logically how it is possible to have Scarlet Fever without a Rash, and how one inmate of a house may suffer from a septic throat and apparently nothing else, but yet a relative may go down with Scarlet Fever, recognised by the presence of the Rash.

8. The knowledge of the existence of a group of closely related germs causing the group of the Scarlatinal infections provides the key to the solution of the vexed question of the Return case, the bane of the Fever Hospital, which baffled the most searching enquiry for years.

9. The Table shows that a very high degree of Hospital Isolation has completely failed to control the prevalence of Scarlet Fever. The solution of the problem has been proved definitely not to be along this line of procedure.

10. In nature, man ceases to become a victim of a germ disease, or group of diseases only if, and when, he has acquired immunity to the attacks of the particular germ or group of germs. He acquires this immunity in consequence of a continuous conflict with his germ enemies. In the course of this conflict the germs slay those who do not become immune by tens of thousands, the price paid by man for his ignorance.

11. Science has now, in many cases, solved the riddle, and has placed at man's disposal the methods of protection used by nature herself.

12. When science has perfected the means of protection against the Scarlatinal group of germs, as she will do in the near future, there, and there alone, will lie the protection of the community against the ravages of Scarlet Fever.

13. The only thing that will stand in the way of this achievement will be the active opposition of a small, but fanatical group of lay and medical objectors. There is something to be said in excuse for the lay fanatics because they cannot be expected to understand; but there is nothing to be said in excuse of the medical fanatics. There always have been medicos of this type, and there always will be, because in a profession numbering many thousands there must always be a minority incapable of dissecting evidence correctly. The same type, for example, blackguarded Lister to their hearts' content, and rejected Pasteur's epoch-making work, even after he had cured Hydrophobia.

The misfortune is that the public holds firmly the delusion that all doctors are equally competent, in spite of the evidence to the contrary.

The best Doctor is the man who knows when he doesn't know.

Our fanatics do not appear to be capable of recognising that they don't know.

I give a Table showing the Ward distribution of the notified cases of Scarlet Fever since 1931 :—

Scarlet Fever Notifications.

Ward.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	Total 1931—1937.
St. Margaret's	86	75	23	45	38	31	67	365
St. John's ...	94	69	32	38	43	31	39	346
Alexandra ...	61	49	21	62	64	18	18	293
St. Clement's	138	47	42	250	159	66	51	753
Bridge ...	67	65	28	33	10	27	39	269
West ...	52	41	48	31	20	14	54	260
BOROUGH ...	498	346	194	459	334	187	268	2,286

Thus we see that the infection of Scarlet Fever has been in constant circulation in every part of the town during the whole period, though not to the same degree in every area.

The excessive incidence upon the St. Clement's Ward is very conspicuous indeed, and it is of great epidemiological interest that it was not the old parts of the Ward that suffered, but the new Estates, with houses equipped with all modern sanitary arrangements, properly spaced, properly built, and in short, as sanitary as they could be.

None of these advantages saved them from excessive prevalence of Scarlet Fever over a period of seven years. This proves, to my mind, that the belief that sanitation by itself will abolish Scarlet Fever is without foundation.

The following Table gives the Ward notification rates since 1931 :—

Notification Rates of Scarlet Fever in the Wards of the Borough since 1931.

Wards.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1931—1937.
St. Margaret's	5.55	4.79	1.46	2.83	2.35	1.90	4.04	3.26
St. John's ...	7.84	5.69	2.63	3.08	3.44	2.45	3.04	3.99
Alexandra ...	3.99	3.17	1.35	3.94	4.02	1.11	1.10	2.65
St. Clement's	9.34	3.14	2.80	16.48	10.34	4.24	3.22	7.06
Bridge ...	4.42	4.24	1.82	2.12	.63	1.69	2.40	2.46
West ...	3.44	2.68	3.12	1.99	1.27	.87	3.34	2.38
BOROUGH ...	5.67	3.90	2.17	5.09	3.65	2.02	2.85	3.60

THE PREVALENCE OF DIPHTHERIA.

In previous Reports in this series the prevalence of Diphtheria in Ipswich has been the subject of considerable discussion, and in last year's Report, and in the previous year especially, the epidemiological position was fully explained. It is unnecessary, therefore, to repeat these comments here. From the epidemiological point of view what has been written about Scarlet Fever applies with equal force in the case of Diphtheria. Diphtheria is never absent; in other words, the infection is constantly circulating in the community, and the cases of the disease which occur are the evidence of the existence of the circulating infection.

The facts with regard to Diphtheria prevalence since 1891, when notification came into force, are set forth in the following Table :—

Periods.	Notifications.		Removals.		Deaths.
	Numbers.	Attack Rates per 1,000 living.	Numbers.	Proportion per cent.	Case Fatality per cent.
1891—1900	536	.88	33	6	29.3
1901—1910	791	1.12	461	58	12.9
1911—1920	1,779	2.33	1,618	90	7.1
1921—1930	1,208	1.45	1,167	96	4 3
1891—1895	273	.91	12	4	37.7
1896—1900	263	.82	21	8	20.5
1901—1905	428	1.22	185	43	13.5
1906—1910	363	1.01	276	76	12.1
1911—1915	628	1 66	532	84	9.4
1916—1920	1,151	2.97	1,086	94	5.9
1921—1925	736	1.81	708	96	3.4
1926—1930	472	1.10	459	97	5.7
1931—1935	914	2.04	893	97	5.5
1931	348	3 97	336	96	6 9
1932	178	2 02	176	99	6.7
1933	135	1.51	132	98	5 1
1934	90	.99	88	97	6 6
1935	163	1 78	161	98	1.2
1936	123	1.33	118	96	5 0
1937	16	.17	16	100	-

The notifications for 1937 numbered sixteen, the lowest number, but one, recorded in the whole forty-seven years of our series. The lowest number notified was 13 cases in 1926, with a notification rate of 0.15 per thousand living.

There were no deaths from Diphtheria in 1937, and the same experience was recorded in 1924. In every other year since 1891 deaths occurred in varying numbers. The highest mortality was in 1895.

We have stated that the epidemiology of Diphtheria is similar to that of Scarlet Fever. It is a naso pharangeal infection which is spread in the same way, and it is in reality a group of diseases caused by a group of germs. The realisation of this fact is necessary to a complete understanding of some of the phenomena of the disease. Under natural conditions, Diphtheria immunises through the normal process of infection of large numbers of people of all ages aggregated in urban communities. This is the reason why the adult born and brought up in a town where Diphtheria is common, is seldom the victim of the disease. In towns the vast majority of the victims are young children who have not yet become immunised by the circulating infection.

I have stated that Diphtheria is never absent, which is another way of stating that the methods which have hithherto been used for dealing with Diphtheria have not succeeded in abolishing the disease, although I agree that there have been intervals in which the amount of Diphtheria has fallen to an extremely low level, as for example, in 1926 and 1937. This contains a warning. In 1926 the type of the disease was extremely mild, but it was followed in 1928 by a type of great severity, and I give the warning that that experience will, in all probability be repeated sooner or later. All the more reason, therefore, to heed the warning.

Diphtheria is one of the great killing diseases of young children, but its fatal results can be prevented, and if such is the case, there should be no question about it being done. Science has found the means to protect children against not only the probabilities of attack, but to afford them almost complete protection against death, should they become victims of the disease. The method of immunisation against Diphtheria has been worked out, and it is associated with a very high degree of success, so high that no child should be allowed to be exposed to the risk of Diphtheria without innoculation. In urban communities every child is inevitably exposed to the risk of infection. Those fanatical people who advise against this method of prevention of infection and death, take upon themselves a responsibility, the gravity of which they evidently do not realise. They are the apostles of the creed of ignorance, and it is regrettable that in this part of East Anglia not a few misguided people belong to this group. It appears to be inevitable that in every community there will be found a section impervious to the teaching of experience, and incapable of appreciating either the meaning or the nature of new knowledge.

The Ward distribution of Diphtheria :—

	Diphtheria Notification Rates.						
Ward.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
St. Margaret's	2 00	2 04	.82	1.19	2.66	2 33	06
St. John's	6 00	4 29	.98	1.62	1 84	87	.07
Alexandra	7 58	2 20	1.35	95	1.69	1 05	.06
St. Clement's	4 74	1 47	.53	1 05	2 08	96	44
Bridge	2 77	1 63	4 68	57	1 01	1 00	.12
West	1 12	85	.58	70	1.39	1 38	24
BOROUGH	3 96	2.00	1 51	.99	1.78	1.33	17

It is of interest to note that in three Wards of the town there was only one case notified in each in 1937, namely, St. Margaret's, St. John's and Alexandra. There were seven cases notified in St. Clement's, four in the West, and two in the Bridge Wards.

Thus, whilst it is true that the disease was practically absent from one half of the town throughout the whole year, the cases that did occur proved either that the infection was still in circulation in these areas, or that the infection was acquired from that in circulation in other parts of the town, as there was no evidence of direct infection in any of the cases.

In either case it comes back to the same thing.

Diphtheria is one of the diseases in which the carrier state is easy of proof. In one sense, every infected person, whether suffering from the disease or not, is a carrier of infection, and capable of its transmission to other persons, thereby maintaining the circulation of the infection. This is not, however, the sense in which the term carrier is commonly understood. Rather the term is confined to the cases of those persons who have been known to have suffered from Diphtheria, but who remain infected for varying periods after convalescence is established, in some cases the carrier state is a very prolonged business indeed, but as a rule 9 or 10 weeks should see the end of the carrier state, either by the disappearance of the germs or the loss of their virulence.

Usually the infection persists in the crypts of the tonsil, and its eradication may be impossible short of Tonsillectomy, which can be recommended in prolonged cases. The operation is, in my experience, completely successful in such cases, and without special risk.

Cases of carriers have been found in which there has been no evidence of the disease at all. These were at one time considered to be examples of the mild, unrecognised case degenerating into the Carrier state. In my opinion, this view is no longer to be regarded as the only explanation. It is, I think, more probable that a good proportion of this particular group are merely infected persons who have failed to get rid of their infection in the normal period of time, thereby continuing to disseminate infection long after they should have ceased to do so.

There is one aspect of this matter to which not enough attention has been given. A person who has once been a carrier can be reinfected again and again in consequence of contact with the circulating infection. The suggestion, therefore, that a Diphtheria carrier can be infective off and on from the primary infection must be viewed with the greatest possible suspicion. It is much more likely to be a reinfection.

I do not think there is any such analogy with the case of the Typhoid carrier, who may remain infective for years off and on, from the primary infection. In this case, of course, the mode of infection is quite different. The Typhoid group is not a nasopharyngeal infection.

THE PREVALENCE OF THE ENTERIC GROUP.

The following Table explains itself.

Periods.	Notifications.		Removals.		Case Fatality per cent.
	Numbers.	Attack Rates per 1,000 living.	Numbers.	Proportion per cent.	
1891—1900	938	1 51	376	40	12.8
1901—1910	485	.69	388	80	16 1
1911—1920	77	.10	62	80	7.7
1921—1930	71	.08	58	81	7 0
1891—1895	383	1.28	130	34	14.3
1896—1900	555	1.73	246	44	11 7
1901—1905	380	1 11	297	78	17.1
1906—1910	105	.29	91	86	12 4
1911—1915	56	.14	46	82	5 3
1916—1920	21	.05	16	76	14.3
1921—1925	34	08	28	82	8 8
1926—1930	37	.08	30	81	5 4
1931—1935	63	.14	57	92	1 6
1931	3	.03	3	100	—
1932	5	.05	5	100	20.0
1933	1	01	1	100	—
1934	2	02	2	100	—
1935	52	57	46	90	—
1936	3	03	3	100	—
1937	4	04	3	75	—

There were four cases of the Enteric Fever Group, Type Paratyphoid B, notified in Ipswich in 1937. This compares with three in 1936 and 52 in 1935. The 1935 notifications included the outbreak at the East Suffolk and Ipswich Hospital. The figure for 1937 may be regarded as about the average of the present day. Paratyphoid B appears to have replaced true Typhoid in this area. There was no connection between any of the cases. They occurred at different periods of the year, and in widely separated parts of the town.

Endemic Enteric has disappeared from this area, and its disappearance is due to the same reasons as stated in the case of Zymotic Diarrhœa. The epidemic variety is a different proposition altogether, and may appear whenever circumstances arise rendering such an event possible. Cases may arise, for example, from cockles taken from the river, although there has been no Cockle Enteric in Ipswich for many years. Milk also may be a source, and there is always the possibility of a water epidemic.

I give the warning that we have not yet solved the epidemiology of Paratyphoid B.

Some idea of the remarkable change that has taken place in the Typhoid Fever experience of Ipswich will be found in the fact that there has only been one death from the Enteric Fever group in this area in ten years. The contrast with former experience is more than vivid.

The disappearance of Endemic Enteric Fever is one of the triumphs of sanitation, because its primary cause was the existence in the immediate vicinity of the homes of the people of filth conditions in which the specific infection of Enteric Fever flourished.

The carriers in the community kept these sources of infection in a state of constant reinfection.

The flies which carried the infection from this gigantic reservoir were the seasonal factor.

TUBERCULOSIS.

NOTIFICATIONS OF TUBERCULOSIS SINCE 1909.

I reproduce the Table showing the number of cases notified in Ipswich since the beginning of notification :—

Year.	Pulmonary.			Non-Pulmonary.			All Forms.		
	M.	F.	P.	M.	F.	P.	M.	F.	P.
1909	41	23	64	—	—	—	41	23	64
1910	29	15	44	—	—	—	29	15	44
Average	35	19	54	—	—	—	35	19	54
1911	75	57	132	—	—	—	75	57	132
1912	178	152	330	—	—	—	178	152	330
1913	112	88	200	58	52	110	170	140	310
1914	98	58	156	18	23	41	116	81	197
1915	60	56	116	18	20	38	78	76	154
1916	91	77	168	19	17	36	110	94	204
1917	77	78	155	18	12	30	95	90	185
1918	81	97	178	16	18	34	97	115	212
1919	82	82	164	26	39	65	108	121	229
1920	70	67	137	39	36	75	109	103	212
Average	92.4	81.2	173.6	21.2	21.7	42.9	113.6	102.9	216.5
1921	173	131	304	41	35	76	214	166	380
1922	90	65	155	23	21	44	113	86	199
1923	72	61	133	38	36	74	110	97	207
1924	72	69	141	24	28	52	96	97	193
1925	72	74	146	34	32	66	106	106	212
1926	55	68	123	41	35	76	96	103	199
1927	68	59	127	26	27	53	94	86	180
1928	72	69	141	20	24	44	92	93	185
1929	63	69	132	25	32	57	88	101	189
1930	62	54	116	19	26	45	81	80	161
Average	79.9	71.9	151.8	29.1	29.6	58.7	109.0	101.5	210.5
1931	69	63	132	24	23	47	93	86	179
1932	70	75	145	19	28	47	89	103	192
1933	80	82	162	21	19	40	101	101	202
1934	92	88	180	20	29	49	112	117	229
1935	76	81	157	16	13	29	92	94	186
1936	77	71	148	12	18	30	89	89	178
1937	46	43	89	11	15	26	57	58	115

The figures for 1909 and 1910 represent Poor Law cases only.

The notification figures for 1937, for both Pulmonary and Non-Pulmonary Tuberculosis were the lowest on record in each case.

I remind readers that the death-rate from Tuberculosis in 1937 was also the lowest on record.

The notification rate for 1937 was less than one-half of the average rate for the decennium 1921-1930.

NOTIFICATION RATES—TUBERCULOSIS.

Periods	Pulmonary			Non-Pulmonary.			All Forms.		
	M	F.	P.	M	F.	P.	M.	F.	P.
1911—1920	2.55	2.01	2.27	.58	.54	.56	3.13	2.55	2.83
1921—1930	2.03	1.63	1.82	.74	.67	.70	2.77	2.30	2.52
1931—1935	1.83	1.64	1.73	.47	.47	.47	2.31	2.12	2.21
1931	1.66	1.36	1.50	.58	.49	.53	2.24	1.85	2.03
1932	1.68	1.61	1.64	.45	.60	.53	2.13	2.21	2.17
1933	1.90	1.74	1.82	.50	.40	.45	2.40	2.14	2.27
1934	2.16	1.84	1.99	.46	.60	.54	2.63	2.45	2.54
1935	1.76	1.68	1.72	.37	.27	.32	2.13	1.95	2.04
1936	1.76	1.45	1.60	.27	.36	.32	2.03	1.82	1.92
1937	1.03	.86	.94	.24	.30	.27	1.28	1.16	1.22

The position therefore is that both the notification and the death-rates from all forms of Tuberculosis are declining.

I draw particular attention to the continued decline in the notifications of cases of Non-Pulmonary Tuberculosis.

In the section of this Report dealing with the death-rates from Tuberculosis, I give a Table showing that the death-rate from the disease has been falling throughout the whole period of 97 years, but at an accelerated rate during the present century. The notification Table which we are now considering tells the same story, though the period is only one of 27 years.

The position therefore is that we have proved that the fatalities from the disease have diminished to a very large extent, and that the sufferers from the disease are also diminishing, although the machinery for detection has been very greatly improved. In spite of this the notifications continue to fall, a further proof, if need be, of the reality of the decline in the incidence of clinical Tuberculosis.

In previous reports I have ascribed the present position of affairs to the evolution of a race developing immunity to Tuberculosis There is, in my view, no evidence that there is any diminution in the number of persons infected with Tuberculosis, although this is not impossible. Nevertheless, the evidence given points, in my opinion, with certainty, to the conclusion that the race has now accumulated a reserve of immunity sufficient to protect the vast majority against the probability of suffering from Tuberculosis in a fully developed form.

If so much has been accomplished already, it is not too much to hope that we are within measurable distance of a racial immunity sufficient to relegate Tuberculosis to a very minor position as a cause of disease and death.

Many factors have contributed to this result and our tables show that, for practically a century, these factors have been in action. Long before any direct attack was organised against Tuberculosis, racial immunity was in course of evolution. The direct attack, consisting chiefly of notification, disinfection, dispensary facilities, institutional treatment and the education of the public has served only to hasten the result.

But the real factors, laying the foundation, have been those raising the general standards of the life of the people. Improved sanitation, higher wages, shorter hours of work, factory legislation, and the abolition of the worst of the housing evils have all had their effect.

The education of the public in the laws of healthy living has had a pronounced influence.

I repeat, many factors have played their part in the production of the result.

When the Sanatorium was opened in 1912, some asked the question, what is to be done with the institution when it is no longer required for the treatment of Tuberculosis? An answer to this question may be demanded sooner than many of us thought. But not yet.

AGE AND SEX DISTRIBUTION OF THE NOTIFICATIONS OF TUBERCULOSIS, 1937.

Age.	Pulmonary.			All other forms.			Total 1937.			Total 1936.
	M.	F.	P.	M.	F.	P.	M.	F.	P.	Persons.
— 1	—	—	—	—	1	1	—	1	1	—
1 — 5	1	1	2	1	1	2	2	2	4	3
5—10	4	5	9	2	6	8	6	11	17	40
10—15	—	2	2	3	3	6	3	5	8	20
15—20	1	5	6	1	1	2	2	6	8	15
20—25	5	5	10	1	—	1	6	5	11	16
25—35	14	11	25	1	2	3	15	13	28	35
35—45	9	7	16	1	1	2	10	8	18	22
45—55	7	3	10	—	—	—	7	3	10	18
55—65	5	2	7	—	—	—	5	2	7	8
65+	—	2	2	1	—	1	1	2	3	1
Total ...	46	43	89	11	15	26	57	58	115	178

This year there is a further decrease in the notification of all forms of Tuberculosis. A big drop will be noticed between the years from 5 to 15. This drop is gratifying.

PRINCIPAL SITES OF TUBERCULOSIS.

The following Table shows the number of cases of the different varieties of Tuberculosis, notified since 1921 :—

Situation of Disease.	Average 1921—1925	Average 1926—1930	Average 1931—1935	1934	1935	1936	1937
Pulmonary ...	175 6	127 8	155.2	180	157	148	89
Abdominal ...	7.6	8 6	4 4	5	6	4	5
Cerebral ...	5.2	6 0	5 4	5	3	3	4
General ...	0 6	0 2	—	—	—	—	—
Bones and Joints	19 6	13 4	8 0	9	7	3	4
Glands ...	17 2	20 4	21 4	28	11	15	11
All other forms of T.B	12.4	6 0	3 2	2	2	5	2
TOTAL ...	238.2	182.4	197 6	229	186	178	115

TUBERCULOSIS SURVIVAL TABLE CORRECTED TO DECEMBER 31st, 1937.

The number of persons notified as suffering from the various forms of Tuberculosis and known to have survived on December 31st, 1937, is shown as follows :—

Sex.		Pulmonary.	Non-Pulmonary.	All Forms.
Males		814	316	1130
Females		780	331	1111
Persons		1594	647	2241
Persons	1936	1590	641	2231
	1935	1534	632	2166
	1934	1454	634	2088
	1933	1367	603	1970
	1932	1273	608	1881
	1931	1225	576	1801
	1930	1194	566	1760
	1929	1179	529	1708
	1928	1145	506	1651
	1927	1092	527	1619
	1926	1095	484	1579

TUBERCULOSIS DISPENSARY.

The number of cases on the Dispensary Register (as distinct from the Notification Register) at December 31st, 1937, was 778.

This figure includes only those cases presenting themselves at the Dispensary during the last two years.

902 X-Ray examinations were carried out during 1937.

The Tuberculosis Officer paid 33 visits to the homes of patients, and, in addition, furnished Practitioners with 254 written reports upon patients sent him for examination.

Year.	No. of Patients attending Dispensary.	No. of Visits paid by Patients.	No. of Visits to Homes by Nurse.
Average			
1921—1925	569	3000	2622
1926—1930	587	2331	3171
1931—1935	689	2485	3526
1932	646	2734	3128
1933	760	2817	3641
1934	747	2514	3775
1935	713	2204	3592
1936	802	2924	3240
1937	866	3263	3661

INSTITUTIONAL TREATMENT OF TUBERCULOSIS

(1) GENERAL.

During the year 190 patients were admitted to Institutions for the treatment of Tuberculosis, 172 were discharged, and 19 died.

With regard to the cases discharged from Institutions, the following summary of the results of treatment is furnished by the Medical Superintendents :—

Condition at time of discharge.	No. of cases			
	Pulmonary.	Other Forms of Tuberculosis	Others.	Total.
Quiescent	47	13	—	60
Not Quiescent	36	5	—	41
Observation only	—	—	35	35
Poor-Law Institution ...	8	1	—	9
In Institutions under 28 days	4	23	—	27
TOTAL	95	42	35	172

REPORT ON CASES TREATED TO A CONCLUSION DURING 1937.

183 patients, including 73 Ipswich patients, were discharged or left during the year. Of these, 167 were treated to a conclusion. 8 were observation cases found to be Non-Tuberculous, and 8 (1 man and 7 women) stayed under 28 days and were not classified.

Table "A" shews the classification of all the cases, including Ipswich cases. Table "B" shews Ipswich cases separately.

The classifications and groupings are in accordance with standards laid down by the Minister of Health. Many of the cases discharged as "Not Quiescent" were much improved as a result of their stay in the Sanatorium.

As will be observed from a study of Table "A," of the cases grouped as "T.B. minus" 89.2% were discharged "Quiescent." Of the cases grouped as "T.B. + Group 1" 90% were discharged "Quiescent." Of the cases grouped as "T.B. + Group 2" 32.5% were discharged "Quiescent." There was no death in these groups. Of the 24 cases grouped as "T.B. + Group 3" none was discharged as "Quiescent" and there were 7 deaths, a percentage death-rate of 29.1.

The importance of early diagnosis and treatment is obvious.

W. F. SUTCLIFFE,
Medical Superintendent,
10th May, 1938.

CLASSIFICATION OF ALL PATIENTS TREATED TO A CONCLUSION IN 1937.

TABLE "A."

Classification on Admission		Condition at time of Discharge	Duration of Residential Treatment															Grand Totals
			Under 3 Months			3 6 Months			6 12 Months			More than 12 Months			Totals			
			M	W	C	M	W	C	M	W	C	M	W	C	M	W	C	
Pulmonary Tuberculosis	Class T.B. Minus	Quiescent ...	1	4	—	7	14	8	4	13	26	1	1	4	13	32	38	83
		Not Quiescent	1	2	—	—	2	2	—	—	3	—			1	4	5	10
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Class T.B. Plus Group 1	Quiescent ..	1	—	—	1	3	—	—	4	—	—	—	—	2	7	—	9
		Not Quiescent	—	—	—			—		1	—	—	—	—		1	—	1
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Class T.B. plus Group 2	Quiescent ...	—	—	—	3	3	—	1	5	—	1	—	—	5	8	—	13
		Not Quiescent	1	3	—	4	6	—	3	5	—	2	3	—	10	17	—	27
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Class T.B. plus Group 3	Quiescent ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Not Quiescent	2	5	—	—	2	—	2	4	—	2	—	—	6	11	—	17
		Died in Institution ...	—	4	—	—	1	—	—	2	—	—	—	—	—	7	—	7

OBSERVATION CASES.

For Pulmonary Tuberculosis	Diagnosis on Discharge from Observation	Stay under 4 Weeks			Stay over 4 Weeks			Totals		
		M	W	C	M	W	C	M	W	C
	Tuberculous ...	1	—	7	—	—	1	1	—	8
	Non-Tuberculous	1	—	—	4	—	3	5	—	3
	Doubtful ...	—	—	—	—	—	—	—	—	—
	Totals ...	2	—	7	4	—	4	6	—	11

CLASSIFICATION OF IPSWICH PATIENTS TREATED TO A CONCLUSION IN 1937.

TABLE 'B."

	Classification on Admission.	Condition at time of Discharge.	Duration of Residential Treatment.															
			Under 3 Months.			3—6 Months.			6—12 Months.			More than 12 Months.			Totals.			Grand Totals.
			M	W	C	M	W	C	M	W	C	M	W	C	M	W	C	
Pulmonary Tuberculosis.	Class T.B. Minus.	Quiescent ...	1	—	—	5	2	8	2	3	20	—	1	2	8	6	30	44
		Not Quiescent	1	—	—	—	—	2	—	—	2	—	—	—	1	—	4	5
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Class T.B. Plus Group 1.	Quiescent ...	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
		Not Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Class T.B. Plus Group 2.	Quiescent ...	—	—	—	2		—	—	1	—	—	—	—	2	1	—	3
		Not Quiescent	—	1	—	3	—	—	1	—	—	1	1	—	5	2	—	7
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Class T.B. Plus Group 3.	Quiescent ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Not Quiescent	—	2	—	—	—	—	1	1	—	—	—	—	1	3	—	4
		Died in Institution ...	—	1	—	—	—	—	—	—	—	—	—	—		1	—	1

OBSERVATION CASES.

	Diagnosis on Discharge from Observation	Stay under 4 Weeks.			Stay over 4 Weeks			Totals.		
		M	W	C	M	W	C	M	W	C
For Pulmonary Tuberculosis	Tuberculous ...	—	—	6	—	—	1	—	—	7
	Non-Tuberculous	1	—	—	4	—	3	5	—	3
	Doubtful ...	—	—	—	—	—	—	—	—	—
	Totals ...	1	—	6	4	—	4	5	—	10

(3) EAST SUFFOLK AND IPSWICH HOSPITAL.

The following Table gives the number of Patients suffering from Surgical Tuberculosis who have been treated at the East Suffolk and Ipswich Hospital since 1925 :—

Year	Remaining from Previous Year.	Admitted.	Treated.	Discharged.	Deaths.	Remaining.
1925	12	44	56	45	3	8
1926	8	53	61	48	2	11
1927	11	29	40	36	2	2
1928	2	26	28	22	6	—
1929	—	21	21	19	1	1
1930	1	21	22	20	1	1
1931	1	24	25	18	—	7
1932	7	16	23	19	—	4
1933	4	32	36	31	—	5
1934	5	28	33	32	—	1
1935	1	23	24	17	4	3
1936	3	17	20	13	2	5
1937	5	29	34	32	1	1

(4) IPSWICH ISOLATION HOSPITAL.

(a) TREATMENT OF SURGICAL TUBERCULOSIS.

Year.	Remaining from Previous Year.	Admitted.	Treated.	Discharged.	Deaths	Remaining
1925		10	10	3	—	7
1926	7	6	13	4	1	8
1927	8	30	38	17	1	20
1928	20	20	40	23	3	14
1929	14	35	49	26	4	19
1930	19	32	51	34	2	15
1931*	15	2	17	17		
1932*		19	19	—		19
1933	19	16	35	24	3	8
1934	8	8	16	4		12
1935	12	2	14	7		7
1936	7	10	17	12	1	4
1937	4	21	28	14	2	12

*Ward closed from 21st January, 1931, to 14th October, 1932

(b) TREATMENT OF ADVANCED TUBERCULOSIS.

Year	Remaining from previous Year.	Admitted.	Treated.	Discharged.	Deaths.	Remaining.
1925	18	62	80	35	24	21
1926	21	60	81	39	25	17
1927	17	53	70	28	28	14
1928	14	62	76	22	27	27
1929	27	16	73	24	25	24
1930	24	65	89	34	27	28
1931*	28	19	47	36	11	—
1932	—	35	35	8	8	19
1933	19	48	67	32	18	17
1934	17	53	70	32	22	16
1935	16	59	75	35	20	20
1936	20	56	76	32	21	23
1937	23	69	92	47	20	25

*Ward closed from 8th August, 1931, to 11th May, 1932.

DENTAL WORK IN CONNECTION WITH TUBERCULOSIS.

I beg to report on the dental treatment of Tuberculosis for the year ending 31st December, 1937.

	Males.	Females.	Total.
Number inspected at Clinic	25	32	57
.. ,, ,, Isolation Hospital ...	1	—	1
.. of visits to Isolation Hospital ...	—	—	1
.. .. cases treated	10	22	32
.. .. attendances made	65	77	142
.. .. teeth extracted	18	69	87
.. . Local Anæsthetic cases ..	8	9	17
.. .. Nitrous Oxide administrations ...	—	12	12
.. .. fillings in permanent teeth ...	13	25	38
.. .. teeth filled	12	24	36
.. .. dressings, etc.	96	143	239
.. .. patients for whom dentures were fitted	4	5	9

Of the 57 cases inspected, 9 were awaiting admission to the Ipswich Sanatorium, and 4 the Borough Isolation Hospital.

8 insured persons entitled to dental benefit under the National Health Insurance Scheme were referred to private practitioners for treatment.

(Signed) T. A EDMONDSON,

Dental Surgeon.

REPORT BY DR. R. PHILPOTT, CLINICAL TUBERCULOSIS OFFICER.

I append a Table showing the occupation of those notified as Tuberculous during the five years 1933-1937. In addition to those shown below, 181 children have been under observation for Tuberculosis. Of these 181, a great majority are suspected cases of hilar Tuberculosis, i.e., Tuberculosis of glands of the root of the lung, and not involving the lung tissue itself.

Occupation or Profession.	Male.		Female.	
	Pulmonary	Non-pulmonary	Pulmonary	Non-pulmonary
General Labourers ...	40	3	—	—
Housewives	—	—	137	12
Clerks	21	2	7	1
Woodworkers	20	3	—	—
Grocers, Bakers, Provision Merchants, Butchers ...	17	2	—	—
No occupation	38	8	34	3
Domestics	2	—	26	2
Factory Hands, Machinists Etc.	9	—	23	3
Shop Assistants	6	2	17	1
Drapers, Tailors, Tailoresses	5	—	19	1
Foundry Workers ...	15	2	—	—
Drivers and Conductors ...	13	1	—	—
Builders and Plasterers ...	14	—	—	—
Painters	10	—	—	—
Travellers (Postmen, Hawkers, Etc.) ...	7	2	—	—
Nurses and Medical Workers	1	—	8	1
Services: Army, Navy and Air Force	9	2	—	—
Metal Workers, Welders, Etc.	8	1	—	—
Engineers	7	1	—	—
Teachers	2	1	2	2
Printers	3	—	3	—
Warehousemen and Storekeepers	5	—	—	—
Electricians	4	—	—	—
Refuse Collectors ...	3	—	—	—
Milkmen, Dairymen ...	3	—	—	—
Waitresses and Barmen ...	2	—	1	—
Window Cleaners ...	2	—	—	—

The number of notifications of Tuberculosis continues to fall. This is in keeping with others parts of the country, and can only be attributed, in my opinion, to the higher standard of living, healthier conditions and improved diagnostic facilities. One of the main methods of preventing Tuberculosis and also in curing it, is rest, and this is not sufficiently appreciated by a number of people. By rest I include rest to the mind as well as to the body, and this is only possible if the economic condition of the individual and his family is satisfactory. Many patients who are undergoing institutional treatment have to take their discharge on account of the economic difficulties at home. Fear of losing their job reacts upon their mind, so that they are unable to get the best out of their treatment. There is still a stigma attached to the individual who has been in a Sanatorium, and many employers are reluctant to employ Tuberculous men. In point of fact, anyone who has been in a Sanatorium and has received instruction in the prevention of infection, so far from being a danger to the public, is infinitely safer than one who (through fear of losing his job) has refused to accept Sanatorium treatment.

MATERNITY AND CHILD WELFARE.

MATERNITY WELFARE.

Clinics held under the Maternity and Child Welfare Scheme under the personal supervision of the Assistant Medical Officer (Dr. Doris E. P. Jolly).

The Clinics at the Public Health Department and Branch Clinic were as under during 1937 :—

Public Health Department, Elm Street.—Tuesday, Thursday and Friday mornings.

Branch Clinic, Clapgate Lane.—Monday and Wednesday mornings.

These Clinics were reorganised at the end of 1937 and, with the services of an additional Assistant Medical Officer of Health (Dr. I. Cullum) with effect from 1st January, 1938, further Clinics became available.

ANTE-NATAL CLINICS.

The following Table gives the numbers examined and the total examinations by the Medical Officer (Dr. Jolly):—

Year	Main Clinic.			Branch Clinic			Total Examinations.
	Cases Examined.	Re-examinations.	Total.	Cases Examined.	Re-examinations.	Total.	
1924	27	18	45	—	—	—	45
1925	61	65	126	—	—	—	126
1926	123	81	204	—	—	—	204
1927	206	71	277	—	—	—	277
1928	290	115	405	—	—	—	405
Average	141	70	211	—	—	—	211
1929	311	343	654	—	—	—	654
1930	447	687	1134	—	—	—	1134
1931	476	656	1132		—	—	1132
1932	679	1016	1695	—	—	—	1695
1933	747	1122	1869	—	—	—	1869
Average	532	765	1297	—	—	—	1297
1934	751	1328	2079	—	—	—	2079
1935	825	1531	2356	—	—	—	2356
1936	681	1306	1987	147	430	*577	2564
1937	714	1672	2386	274	723	997	3383

* Part year only.

POST-NATAL CLINICS.

Year	Main Clinic.			Branch Clinic.			Total Examinations.
	Cases Examined.	Re-examination.	Total.	Cases Examined.	Re-examinations.	Total	
1924	—		—	—	—		—
1925	—		10	—	—		10
1926	—	—	48	—	—	—	48
1927	52	43	95			—	95
1928	67	66	133	—	—		133
Average	—	—	—				—
1929	79	63	142	—	—		142
1930	92	44	136	—			136
1931	104	44	148	—		—	148
1932	63	32	95	—			95
1933	61	22	83		—		83
Average	80	41	121		—		121
1934	70	22	92	—	—	—	92
1935	73	29	102	—			102
1936	69	34	103	27	8	35	138
1937	69	33	102	82	37	119	221

ANTE AND POST-NATAL CLINICS.—DEFECTS FOUND.

The examinations carried out at the Ante-Natal and Post-Natal Clinics revealed the following defects:—

Defect.	Ante-Natal.			Post-Natal		
	Main Clinic.	Branch Clinic.	Total.	Main Clinic.	Branch Clinic.	Total.
Albuminuria	10	8	18	—	—	—
Anæmia	2	—	2	2	—	2
Breast Disorders ...	—	—	—	4	1	5
Contracted Pelvis ...	—	—	—	—	—	—
Debility	2	—	2	3	2	5
Dental Caries	346	151	497	13	7	20
Disease of Heart ...	5	3	8	1	—	1
Dyspepsia	10	3	13	2	—	2
Gynæcological Disorders	7	2	9	16	19	35
Hæmorrhage	3	1	4	1	—	1
Hæmorrhoids	3	2	5	1	2	3
Malpresentation ...	1	—	1	—	—	—
Neuralgia	—	—	—	—		—
Oedema	—	4	4	—	—	—
Ophthalmic Disorders ...	4	1	5	3	1	4
Respiratory Diseases ...	20	12	32	—	1	1
Skin Disorders ...	4	—	4	—	—	—
Tuberculosis	—	—	—	—	—	—
Varicose Veins	118	55	173	1	—	1
All others	19	11	30	5	5	10
TOTAL	554	253	807	52	38	90

REPORT BY THE MEDICAL OFFICER IN CHARGE OF THE ANTE AND POST-NATAL CLINICS.

The total attendances at the clinics for Maternal Welfare in 1937 showed an increase of over 30% in the previous year. This may be partly due to the inauguration of the new municipal midwifery service, which encourages the women to make their arrangements early for booking doctor and/or midwife and to co-operate in the matter of ante-natal care.

997 individual women were in attendance, and among these 696 deliveries took place during the year; this represents about 88% of the total midwife deliveries in the town.

MATERNAL MORTALITY.

During the 14 years the clinics have existed, over 6,200 women have attended. Amongst these, 7 deaths have occurred in connection with childbirth, a rate of 1.1 per thousand.

In 1937 2 deaths occurred :—

(1) Ante-partum hæmorrhage in a multipara II. This was of sudden onset at her last attendance at the ante-natal clinic. No symptoms of toxæmia were present.

(2) Puerperal thrombosis associated with mental symptoms five weeks after delivery in a primipara.

MATERNAL MORBIDITY.

79 cases were referred by letter to their own doctors or the hospital for illness or abnormality. 12 of these were referred from the post-natal clinics. 67 were referred during pregnancy.

12 of these were cases of toxæmia of pregnancy, several of which required immediate admission to hospital.

8 were cases of hæmorrhage or threatened abortion.

5 were cases of abnormal presentation or fœtal disproportion.

8 were cases of genito urinary tract infections.

12 were cases of some ophthalmic disorder.

There were in addition cases of cardiac, nervous and orthopædic defects, also one case of malignant disease.

FŒTAL MORTALITY.

20 cases were stillborn, a rate of 2.8%.

In 8 cases prematurity of birth was present, in one case being associated with ante-partum hæmorrhage, in one with precipitate labour, and in one with severe maternal oral sepsis.

Apparent post-maturity was noted in two cases.

Toxæmia of pregnancy was present in two cases, unsatisfactory maternal general conditions, including in one case oral sepsis and chronic rheumatism were present in three cases.

Two cases were associated with abnormal labour, placenta prævia and uterine inertia.

In two cases no factors which might have contributed to the fœtal death were discovered ante-natally, and in the final two cases the mothers failed to attend for adequate supervision.

D. E. P. JOLLY,

Assistant Medical Officer of Health.

IPSWICH MATERNITY HOME.

I append a Table which shows the admissions since the opening of the Home in July, 1918 :—

Year.	Cases admitted from			Total No of Days.	Average duration of stay in days.	Per cent. of Total Ipswich Births.
	Ipswich.	Outside Areas.	Total.			
1919—1920	144	18	162	2,112	13.0	4.2
1921—1925	356	61	417	4,732	11.3	4.7
1926—1930	560	133	693	7,521	10.9	7.8
1931—1935	1171	223	1394	14,739	10.6	17.7
1926	71	15	86	935	10.8	4.6
1927	87	15	102	1,154	11.3	6.2
1928	114	27	141	1,562	11.1	8.2
1929	136	31	167	1,803	10.8	9.6
1930	152	45	197	2,067	10.5	10.6
1931	169	50	219	2,296	10.5	12.3
1932	200	33	233	2,494	10.7	14.3
1933	208	34	242	2,580	10.7	15.8
1934	258	56	314	3,285	10.5	20.5
1935	336	50	386	4,084	10.6	23.3
1936	311	57	368	3,846	10.4	22.1
1937	351	50	401	5,217	13.0	24.8

63.5 per cent. of the women were confined by the midwives at the Home.

In 46 cases, or 18 per cent., medical assistance was sought, in 15 cases during labour, in 28 after labour, and in 3 for the infant.

Two cases of Puerperal Fever and seven of Puerperal Pyrexia were notified during the year.

There were no maternal deaths, but 4 infants died under 10 days, 8 infants were stillborn, and there was one miscarriage.

The monthly admissions are given below :—

January	30	July	41
February	36	August	35
March	40	September	30
April	29	October	39
May	33	November	28
June	30	December	30

MIDWIVES AND MATERNITY NURSING.

During the year 1937 a scheme under the Midwives Act, 1936, was prepared and was put into force in Ipswich with effect from the 1st August. It is, therefore, necessary to report upon 1937 in two sections—firstly, the period until the 31st July, under which the old conditions prevailed, and secondly, the period from the 1st August, when the new scheme came into force.

FIRST PERIOD OF THE YEAR.

The number of Ipswich cases attended by midwives was as under :—

At Maternity Home	224
District Cases attended by Midwives from Ipswich Nurses' Home (from 1.1.37 to 31.7.37)	192
Unattached or Outside Midwives	152

SECOND PERIOD OF THE YEAR.

Nine Municipal Midwives were appointed and these were allocated to three districts in the town and the under-mentioned table indicates the distribution :—

No. of District	Area covered by District	Nurses Serving the District	Addresses of Nurses	Telephone Numbers
1	St. Margaret's Ward St. John's Ward	MISS H. MOORE MISS H. M. MAUN	7, Lower Brook Strreet ,, ,, ,, ,,	3397 ,,
2	Alexandra Ward St. Clement's Ward	MISS C. E. CURRAN MISS P. ADAMS MRS. A. GIRLING MISS M. OSBORN	7, Lower Brook Street ,, ,, ,, ,, 5, Gladstone Road 42, Clapgate Lane	3397 ,, 3336 7604
3	Bridge Ward Westgate Ward	MISS E. ROBERTS MISS E. DITCHAM MRS. E. J. TALBOT	35, Burrell Road 307, Norwich Road 99, London Road	3035 81209 3883

The scheme provides that a woman desiring to book a midwife or maternity nurse may either call at the Public Health Department or go direct to one of the midwives serving the district in which she lives.

The Public Health Department, however, reserves the right to adjust bookings where necessary in order that no midwife should attend more than six midwives' and three doctors' cases per month.

The fees arranged were as under .—

For the services of a midwife	35/-
For the services of a maternity nurse ...	28/-

These fees cover attendance for 14 days and are subject to variation in accordance with an approved scale.

A few difficulties were met in the initial stages of the change-over, but at the end of the year the scheme was running very smoothly and appears to fulfil the requirements of the public.

It was soon apparent that nine municipal midwives would not be sufficient owing to absences on account of sickness, holidays, etc., but it was decided to allow the scheme to run for 12 months in order that a complete report could be made upon the year's working.

The cases attended by the municipal midwives during the five months ending the 31st December, 1937, was as under :—

As midwives	244
As maternity nurses	108

The usual Tables are given with regard to requisitions for medical help and these refer to the complete year, 1937.

The Table shows the number of cases in which the midwives required medical help :—

Year	Notifications received.			Percentage of Births attended by Midwives in which Medical Help was called in.
	On behalf of Mother.	On behalf of Child.	Total.	
1921-1925	320	164	484	12.5%
1926-1930	372	174	546	12.5%
1931-1935	494	197	691	17.2%
1926	76	38	114	13.5%
1927	64	37	101	13.0%
1928	78	21	99	12.1%
1929	73	39	112	12.2%
1930	81	39	120	12.6%
1931	88	37	125	15.3%
1932	88	46	134	15.7%
1933	100	40	140	17.7%
1934	104	44	148	19.4%
1935	114	30	144	18.1%
1936	106	41	147	18.0%
1937	120	38	158	19.4%

The causes for which medical help was required are set forth as follows :—

	Average 1921-1925.	Average 1926—1930.	Average 1931—1935.	1933	1934.	1935.	1936.	1937.
MOTHER :—								
Torn Perineum ...	16	21	36	40	35	47	44	53
Prolonged, Tedious or Difficult Labour ...	11	12	17	17	17	20	11	16
Faulty Presentations...	7	7	10	6	15	11	9	6
Impactions	4	4	2	—	3	2	2	—
Hæmorrhages ...	4	6	7	7	7	3	3	7
Puerperal Fever ...	2	4	3	6	3	5	4	5
Other Rise of Temperature	4	2	3	3	5	2	3	6
Adherent Placenta ...	3	3	3	4	1	4	8	9
Albuminuria	2	1	1	2	1	1	3	2
Phlebitis	1	2	2	1	3	2	1	—
Abortion	1	1	2	5	1	—	1	—
Contracted Pelvis ...	1	—	—	—	—	—	—	—
Eclampsia	1	1	—	1	—	—	1	—
Prolapse of Cord ...	1	1	—	1	—	—	—	—
Induction	—	—	1	—	—	—	—	—
Miscellaneous	6	9	12	7	13	17	16	16
TOTAL ...	64	74	99	100	104	114	106	120
CHILD :—								
Discharging Eyes ...	10	8	12	9	20	7	10	7
Debility, Feebleness, etc.	8	9	8	4	5	7	3	3
Prematurity	6	5	7	11	6	7	7	8
Malformations ...	2	4	3	5	2	2	2	4
Convulsions and Fits	2	1	—	—	1	—	—	—
Suffocation	1	—	—	—	—	—	—	—
Hæmorrhages (various)	—	2	2	2	4	1	4	3
Miscellaneous	3	6	7	9	6	6	15	13
TOTAL ...	32	35	39	40	44	30	41	38

ASSISTED SCHEMES IN CONNECTION WITH MATERNITY WELFARE.

The main sections in the scheme are : (a) Milk and Milk Foods to expectant and nursing mothers; (b) Provision of Maternity Home accommodation at reduced fees; (c) Provision of Midwives or Maternity Nurses at reduced fees; (d) Help towards the payment of the fees of Medical Practitioners called in by Midwives under the Midwives Act; (e) Provision of Dental Treatment and Dentures.

(a) MILK SUPPLY.

The following Table shows the number of mothers and the quantity of milk supplied during 1937, together with the figures for previous years :—

Year	Mothers.			Pints of Milk.		
	Expectant.	Nursing.	Total.	Expectant.	Nursing.	Total.
1930	39	104	143	1,823	10,989	12,812
1931	59	181	240	2,784	21,744	24,528
1932	101	272	373	4,991	26,971	31,962
1933	107	273	380	5,093	27,280	32,373
1934	80	198	278	3,616	20,659	24,275
1935	83	207	290	4,351	19,680	24,031
1936	83	233	316	4,326	28,133	32,459
1937	104	215	319	5,194	27,763	32,957

(b) MATERNITY HOME FEES.

279 women out of a total of 351 were admitted to the Ipswich Maternity Home at reduced fees. This represents 79% of assisted cases in 1937 as compared with 78% in 1936, and 79% in 1935.

The full fee is 9/- per day, but women were admitted at varying rates as under :—

8/- ...	13	4/6 ...	5	1/6 ...	—
7/- ...	42	4/- ...	39	1/- ...	3
6/6 ...	1	3/6 ...	—	6d. ...	1
6/- ...	70	3/- ...	14	Free ...	1
5/6 ...	1	2/6 ...	4		
5/- ...	78	2/- ...	7		

The same procedure was followed as in previous years, and the charges fixed in accordance with an income scale.

(c) PROVISION OF MIDWIVES OR MATERNITY NURSES AT REDUCED FEES.

As reported earlier in this section the scheme under the Midwives Act, 1936, was introduced on the 1st August, 1937, and the Committee approved a scale which provides a reduction in the case of the services of a midwife or maternity nurse if the circumstances of the family fall below a given figure. 247 women availed themselves of this concession and this represents 69% of assisted cases.

The full fee for a midwife is 2/6 per day and for a maternity nurse 2/- per day. The actual fees charged according to the scale varied from nothing up to these figures.

(d) Doctors Fees.

The midwives found it necessary to call in medical assistance at 149 confinements for 158 causes. Accounts were received from Medical Practitioners in 137 of these cases.

The amount paid by the Local Authority was £158 10s 0d., as compared with £158 15s. 7d. in 1936. In 86, or 62%, of these cases the fee has been settled in full, the amount recovered being £100 2s. 6d.

Thirty-two, or 23%, desired to pay by instalments, and the sum received to date totals £13 16s. 0d.

In 13 cases the fee due has been written off on account of poverty.

To date, therefore, £113 18s. 6d., or 71%, of the cost under this heading, has been recovered. The amount recovered in 1936 was 71%.

(e) Dental Treatment.

DENTAL WORK IN CONNECTION WITH MATERNITY WELFARE.

Dental treatment is now carried out at the Branch Clinic as well as at the Main Clinic.

Mr. T. A. Edmondson, the Dental Surgeon, reports as follows :—

Ante- and Post-Natal.

I beg to report on the Dental treatment of Maternity cases for the year ending December 31st, 1937.

The work done is detailed as follows :—

	Main Clinic.			Branch Clinic.			Total.
	A.N.	P.N.	Total	A.N.	P.N.	Total	
Number of mouths examined ...	173	50	223	208	34	242	465
.. having one or more septic teeth	151	47	198	154	26	180	378
.. advised to have treatment	171	49	220	196	33	229	449
.. actually treated at Clinic	106	33	139	94	32	126	265
.. of attendances made ...	501	186	687	531	143	674	1,361
.. of teeth extracted ...	363	141	504	475	165	640	1 144
.. of Nitrous Oxide administrations ...	94	36	130	95	37	132	262
.. of Local anaesthetics given	11	3	14	10	2	12	26
.. of Amalgam fillings ...	98	10	108	60	15	75	183
.. of Amalgam & Cement fillings ...	71	12	83	16	3	19	102
.. of Cement fillings ...	37	11	48	23	8	31	79
Total number of fillings ...	206	33	239	99	24	123	362
Number of teeth filled	192	31	223	96	24	120	343
.. of sundry dressings, etc	270	14	284	10	12	220	306
.. of scalings	38	9	47	40	8	48	95

Of the total number examined 81.29% had one or more septic teeth, 96.56% were advised to have treatment but only 56.99% of these were actually treated. The percentage of Ante-natal cases who consented to treatment was 47.95% at the branch clinic, and 62.00% at Elm Street, whilst the Post-natals 96.90% accepted treatment at the Branch, compared with 67.34% at the main clinic. The figures show the dental condition of mothers attending the Branch clinic to be worse than those seen at Elm Street.

At the branch 25% required extraction of remaining teeth on account of oral sepsis, whereas only 13.46% of the patients seen at Elm Street needed this drastic treatment. In all cases where both conservative treatment—fillings, scalings, etc.—and extractions are advised we insist upon the conservative work being done before the extractions for two reasons; first, by putting the mouth into as healthy a condition as possible prior to extractions the risk of septic conditions arising after extractions is definitely minimised. In the second place, it assists us to impress on the patients our aim to improve their general health and not merely to alleviate pain. Experience has shown that when extractions have been done many of these women fail to return for fillings.

Two post-natal cases were treated as ante-natal cases in a previous year.

At the Main Clinic 63 dentures were supplied, 32 ante-natal and 31 post-natal, and three dentures were repaired, whilst at the Branch clinic 59 dentures were supplied, 40 ante-natal and 19 post-natal and one denture was repaired.

Of his work at the Branch Clinic, Mr. Cuthill writes: " During the year the mouths of 242 mothers were examined; this is almost double the number for the nine months of the previous year. Of the total number examined, 229, or 94.6%, required to have treatment of some kind, 60 mothers, or one in every four examined were found to be suffering from oral sepsis to such an extent that they were advised to have all their remaining teeth extracted. The ages of these mothers ranged from 22 years to 44 years, the average age being 32.5 years.

Eleven of the 13 mothers not requiring treatment were in possession of full artificial dentures, so that only two of the 242 examined had satisfactory natural dentitions.

These figures amply illustrate the need for the dental scheme.

The indifference with which some of these mothers regard even gross dental conditions makes one wonder if they are capable of being educated up to the point of realising that dental disease is harmful, and that treatment is definitely beneficial both to themselves and the child. Turning to another aspect, the same indifference will be shown in the future to their children's dental condition. It is this indifference that we have to try to break down; it is uphill work and at times very discouraging.

The percentage of Ante-natal cases who consented to treatment was 47.95. 96.9% of post-natal cases accepted treatment. These figures show increases of 7.29% and 7.62% respectively over the figures for last year.

Ninety of the ante-natal cases examined had pregnancies of more than six months' duration. Possibly this affects the number of acceptances.

The mothers who were treated made an average number of attendances of 4.3."

T. A. Edmondson,

Dental Surgeon

CHILD WELFARE.

The following is a Summary of the Home Visits since 1921 :—

HOME VISITS BY HEALTH VISITORS.

Year.	Expectant Mothers.	Children.		
		—1	1—5	Total
Average				
1921—1925	14	2,090	1,910	4,000
1926—1930	35	1,596	3,012	4,608
1931—1935	82	3,396	6,168	9,564
1926	18	1,643	2,149	3,792
1927	6	1,477	2,094	3,571
1928	20	1,621	4,432	6,053
1929	55	1,590	3,384	4,974
1930	75	1,647	3,004	4,651
1931	61	2,965	5,992	8,957
1932	69	3,721	6,326	10,047
1933	65	3,403	6,182	9,585
1934	120	3,158	5,825	8,983
1935	96	3,735	6,516	10,251
1936	152	3,124	5,295	8,419
1937	179	3,206	6,373	9,579

In addition the Health Visitors paid visits under the following headings :—

To Midwives	25
,, Cases in which Midwives had summoned Medical assistance	69
,, Cases notified as suffering from Puerperal Fever, Ophthalmia Neonatorum, etc.	30
,, Stillbirths	42
,, Miscellaneous Visits	1,911

941 visits were paid by members of the staff to homes in connection with fees relating to Medical assistance, the Maternity Home and the Midwives Act.

WORK OF THE INFANT CLINICS.

There are two Infant Clinics in Ipswich, one at the Public Health Department in Elm Street and the other at the Branch Clinic, Clapgate Lane.

Infant clinics are held during the following sessions :—

Public Health Department, Elm Street.—Every week-day afternoon except Saturday from 2.30 p.m. to 5 p.m.

Branch Clinic, Clapgate Lane.—Tuesday, Wednesday and Thursday from 2.30 p.m. to 5 p.m. Monday and Friday from 4 p.m. to 5 p.m.

The following is a summary of the visits paid to the Centres since 1921 :—

Year	MAIN CLINIC			BRANCH CLINIC.			TOTAL		
	Infants—1	Children 1—5.	Total.	Infants—1.	Children 1—5	Total.	Infants—1.	Children 1—5	Total.
Average									
1921—1925	7,502	3,013	10,515	—	—	—	7,502	3,013	10,515
1926—1930	8,711	3,833	12,544	—	—	—	8,711	3,833	12,544
1931—1935	8,216	4,132	12,348	3,008	1,527	4,535	11,224	5,659	16,883
1926	7,428	3,083	10,511	—	—	—	7,428	3,083	10,511
1927	7,076	3,206	10,282	—	—	—	7,076	3,206	10,282
1928	9,144	4,079	13,223	—	—	—	9,144	4,079	13,223
1929	8,820	3,973	12,793	1,243	481	1,724	10,063	4,454	14,517
1930	7,930	3,749	11,679	1,916	596	2,512	9,846	4,345	14,191
1931	9,024	4,608	13,632	2,660	1,263	3,923	11,684	5,871	17,555
1932	8,381	4,287	12,668	2,615	1,615	4,230	10,996	5,902	16,898
1933	8,056	3,930	11,986	3,175	1,657	4,832	11,231	5,587	16,818
1934	7,763	4,003	11,766	2,886	1,473	4,359	10,649	5,476	16,125
1935	7,856	3,831	11,687	3,704	1,628	5,332	11,560	5,459	17,019
1936	9,018	4,670	13,688	3,939	2,806	6,745	12,957	7,476	20,433
1937	8,390	5,408	13,798	4,745	3,671	8,416	13,135	9,079	22,214

EXAMINATION OF INFANTS BY MEDICAL OFFICER.

Under the Personal Supervision of the Assistant Medical Officer (Dr. Doris E. P. Jolly).

Public Health Department, Elm Street.—Monday and Wednesday afternoons from 2.30 p.m. to 5 p.m.

Branch Clinic, Clapgate Lane.—Tuesday and Thursday afternoons from 2.30 p.m. to 5 p.m.

Age.	No. of Infants Examined.	No. of Re-Examinations.	Total 1937.	1936.	Average 1926—1930.	Average 1931—1935.
—1	994	3,071	4,065	3,832	1,645	3,201
—2	372	1,093	1,465	1,124	445	796
—3	228	556	784	595	217	483
—4	196	387	583	428	161	314
—5	144	262	406	313	117	219
Total	1,934	5,369	7,303	6,292	2,585	5,013

REPORT OF THE MEDICAL OFFICER IN CHARGE OF THE INFANT WELFARE CENTRE.

During 1937 there was a steady extension of Child Welfare work both in the direction of Home Visiting and Clinic visits. The value of regular home visiting by trained and observant Health Visitors cannot be over-estimated in child welfare work, since only in this way can the child be studied in relation to his actual daily environment and adverse factors, which may never be apparent in ordinary medical consultations at the clinic be brought to light and the remedy sought. Also only in this way can be reached that small but definite number of mothers, who, while not prepared to make any active effort to obtain advice are not unwilling to listen to and sometimes act on it when brought right to their own doorsteps.

The extension of the milk scheme, to include children up to five years, where necessary, is responsible largely for the increased attendances at the clinics, where frequently now the accommodation and staff are taxed to the utmost in dealing with the large numbers.

The majority of the cases of toddlers taking the free milk do show such sufficiently increased well-being as to be distinctly noticeable to the mothers themselves, and it is to be hoped that the benefit of increased milk consumption being realised the milk habit will become so firmly formed as to last throughout the school career.

In curious contrast to this larger what might be termed milk insufficiency group, clinic work reveals a smaller but definite group of mothers of more ample financial resources, who regard milk as the only possible means of fulfilling the fluid requirements of the young child's body, and endeavour to curb their little ones' natural desire to drink plain water, fearing this may be harmful to it. A frequent result of this lack of use of water for internal cleansing is constipation, perhaps the commonest of all disorders for which children are brought up for advice, and which is almost invariably promptly treated by medicines and a vicious circle set up. The natural and regular elimination of waste products should be as easy to the healthy child as the satisfaction of its appetite for food and drink, if, by parental example and training, the appetite has been habitually stimulated for the right foods, and the muscle tone of the whole body kept fit by adequate rest as well as exercise. More water, more sleep, would be helpful factors in the solution of the nutritional problems of quite a number of children above the actual poverty line.

D. E. P. JOLLY,
Assistant Medical Officer of Health.

ARTIFICIAL LIGHT CLINIC.

Artificial Light Clinic—Monday, Tuesday, Thursday and Friday, 2.30 p.m., Elm Street.

The figures in the appended Table show the number of children who attended :—

Age.	No of Children Treated.	Number of Re-Visits.	Total 1937.	1936.	Average 1931—1935.
— 1	3	34	37	46	238
— 2	16	193	209	141	411
— 3	10	239	249	118	235
— 4	6	74	80	100	194
— 5	8	207	215	62	201
Total	43	747	790	467	1,279
School Children	102	1,540	1,642	1,659	2,014
Grand Total ...	145	2,287	2,432	2,126	3,093

The following Table shows the defects of the children referred to the Sunlight Clinic :—

Defect.	— 5 years.	+ 5 years.	Total.
Subnormal Nutrition ...	4	1	5
Pretubercular Debility ...	1	12	13
Enlarged Glands (Neck) ...	5	6	11
Rachitic & Prerachitic ...	5	—	5
Tuberculous Affections—			
Cervical Glands ...	—	4	4
Abdominal ...	—	1	1
Bones & Joints ...	—	—	—
Lupus	—	—	—
Convalescence following Infectious Diseases ...	2	2	4
Catarrhal and Bronchial Infections	2	10	12
Anæmia, Debility and Marasmus	9	24	33
Unclassified	4	5	9
TOTAL ALL FORMS ...	32	65	97

OPHTHALMIA NEONATORIUM.

Eight cases were notified in 1937, as compared with 10 in the previous year.

Two cases were treated at home by medical practitioners.

Of the other cases five were admitted to the East Suffolk and Ipswich Hospital, and one to the Ipswich Isolation Hospital.

The following Table gives the result of treatment :—

Recovery without impairment of vision ...	7
Marked impairment of both eyes	—
Died	—
Removed from District and lost sight of ...	1

INFANT LIFE PROTECTION.

At the beginning of 1937 there were 61 Foster-Mothers and 77 children on the Register, whilst at the end of the year there remained 60 Foster-Mothers and 74 children.

The Health Visitors paid 120 visits to children under five years of age, and 176 to children over five years.

During the year two children were removed from unsuitable homes, one owing to alleged ill-treatment.

Five applicants for recognition as Foster-Mothers were considered unsuitable, three owing to lack of accommodation.

ASSISTANCE SCHEMES IN CONNECTION WITH CHILD WELFARE.

The main sections of the schemes are :—(a) Milk and Milk Foods for Infants; (b) Provision of Dental Treatment.

(a) MILK AND MILK FOODS.

The following Table shows the number of infants and the quantity of Milk or Milk Foods supplied during 1937, together with the figures for the six previous years :—

Year.	Infants.	Cows Milk.	Dried Milk.			Total Pints of Milk.
		Pints.	Lbs.		Pints	
1930	65	829	760	or	4,140	4,969
1931	88	635	989	or	5,687	6,322
1932	106	760	1,022	or	5,876	6,636
1933	98	963	1,198	or	6,888	7,851
1934	69	486	953	or	5,479	5,965
1935	76	1,061	766	or	4,404	5,465
1936	142	4,553	1,220	or	7,015	11,568
1937	275	15,669	1,371	or	7,883	23 552

(b) DENTAL TREATMENT.

DENTAL WORK IN CONNECTION WITH INFANT WELFARE.

Dental treatment is now carried out at the Branch Clinic as well as the Main Clinic.

Mr. Edmondson reports as follows:—

I beg to report on the dental treatment of children under 5 years of age for the year ending December 31st, 1937:—

	Main Clinic.			Branch Clinic.			Total.
	M	F	T	M	F	T	
Number of cases inspected ...	153	132	285	75	88	163	448
Number of cases found to require treatment	145	123	268	72	79	151	419
Actual number of cases treated	145	123	268	68	66	134	402
Number of attendances made ...	239	204	443	146	145	291	734
.. of Deciduous teeth extracted	223	200	423	111	86	197	620
.. of Local Anaesthetics given	21	12	33	11	4	15	48
.. of Nitrous Oxide and Oxygen administrations	120	113	233	54	57	111	344
.. of Fillings	70	67	137	85	72	157	294
.. of Sundry Dressings ...	107	56	163	31	18	49	212
.. to whom advice was given, no treatment being necessary ...	8	9	17	3	9	12	29

The ages of the children treated at the Main clinic ranged from one to five years as follows:—Under 2, 1; under 3, 6; under 4, 87; and under 5, 174.

Compared with the year 1936 there was an increase of 152 fillings and 123 dressings in the total work done.

Of his work at the branch clinic, Mr. Cuthill writes:—" During the year 163 children of pre-school age were examined; this compares with 93 inspected during the nine months the branch clinic was open in the previous year.

The number of children in this age group attending the clinic is very disappointing. A rough estimate reveals that there are at least 2,000 children under school age in the area. Having made deduction for children under two years of age we have at least 1,200 children who should be in possession of all their deciduous teeth. The position is now this: less than 12% of these children are being dentally inspected *once a year*. These inspections shows that each child should be inspected once every three months, dental disease, once having commenced in these toddlers' mouths, spreads very rapidly, and permanent damage is done to their dentitions. This is a matter that demands earnest consideration, the solution of the problem of how to get these children to the clinic for inspection being difficult to find. A successful dental scheme for this age group would multiply considerably the benefits to be derived from the school dental scheme. First inspections at school show that irreparable damage has been done to many dentitions before the children are subject to regular inspection, whereas if these children were inspected regularly and had conservative treatment carried out, the probability is that on entering school they would have normal development of the jaws and the teeth, and contiguous structures would be in normal relationship, which state being more than half the battle against the onset of dental disease.

Psychologically great benefits would accrue. The children, finding that treatment was very simple, would lose that dread of the dentist which seems to be at the root of the refusals at school inspections, and we should have a much desired increase in the percentage of consents to treatment.

The ages of the children inspected ranged from 1 to 5 years as follows: Under 2, 3; under 3, 14; under 4, 55; under 5; 91.

The average age of the children was 3½, and the average number of decayed teeth per child was 4. These figures are the same as those for last year. If the figure of 4 decayed teeth per child is to be taken as an average for all the children in the age group in the area, probably it is higher, these growing children have five thousand decayed teeth in their mouths. This is a very sad reflection when it is remembered that there is a fine modern clinic situated in the centre of the area."

T. A. EDMONDSON,
Dental Surgeon.

IPSWICH ISOLATION HOSPITAL.

The appended Table shows the total numbers admitted to, and treated at, the Hospital since 1901 :—

Year.	Admissions.	Total Treated.
Annual Average 1901—1910	176	202
,, 1911—1920	574	634
,, 1921—1930	490	561
,, 1921—1925	423	484
,, 1926—1930	557	639
,, 1931—1935	857	984
1931	1,068	1,200
1932	783	944
1933	647	744
1934	955	1,072
1935	831	958
1936	684	817
1937	747	812

Patients were admitted to the Hospital from the under-mentioned Authorities :—

Authority.	Infectious Diseases.	Tuberculosis.	Total.
IPSWICH	474	84	558
County Councils—London	1	—	1
East Suffolk	14	7	21
West Suffolk		1	1
County Boroughs—			
Harwich P S A	1		1
Urban District Councils—			
Aldeburgh	5	—	5
Felixstowe	9	—	9
Leiston	2	—	2
Saxmundham	5	—	5
Woodbridge	9	—	9
Hadleigh	2	—	2
Rural District Councils—			
Blyth	16	—	16
Cosford	15	—	15
Deben	38	1	39
Gipping	4	—	4
Hartismere	21	—	21
Samford	28	—	28
Other Authorities—			
Royal Air Force, Martlesham	2	—	2
Royal Air Force, Felixstowe	1		1
Private O.B. Cases ...	7	—	7
TOTAL	654	93	747

ACCOMMODATION.

Table giving the number of admissions and Patient Days for Ipswich and Outside Borough Patients (Infectious Diseases only) :—

Year	Admissions				Patient Days				Average Weekly number under treatment.
	Ipswich	"Outside" Patients	Total.	% of Outside Patients.	Ipswich.	"Outside" Patients	Total.	% of Outside days.	
1929	528	123	651	18.9	18,609	4,448	23,057	19.3	74
1930	535	124	659	18.8	19,002	4,931	23,933	20.6	77
1931	902	145	1047	13.8	36,308	5,617	41,925	13.4	135
1932	590	139	729	19.0	26,644	6,113	32,757	18.7	103
1933	430	153	583	26.2	17,026	6,184	23,210	26.6	73
1934	624	270	894	30.2	24,327	11,393	35,720	31.8	112
1935	623	146	769	19.0	24,620	5,682	30,302	18.7	98
1936	459	159	618	25.7	16,626	5,842	22,468	26.0	74
1937	474	180	654	27.5	13,514	5,220	18,734	27.9	63

The following Table gives the usual details as to admissions, etc. :—

Disease		Average 1921--1925	Average 1926--1930	Average 1931--1935	1935	1936	1937
INFECTIOUS DISEASES.	No. in Hospital Jan 1st	41	47	100	99	106	39
	Admissions ...	357	475	804	769	618	654
	Total Treated ...	398	522	904	868	724	693
	No. discharged ...	349	444	774	746	656	613
	,, of deaths ...	16	21	27	16	29	21
	,, Remaining Dec. 31st	33	57	103	106	39	59
TUBERCULOSIS.	No. in Hospital Jan. 1st	18	21	20	16	20	22
	Admissions ...	66	57	43	59	56	69
	Total Treated ...	84	78	63	75	76	91
	No. Discharged ...	46	28	29	35	31	46
	,, of Deaths ...	18	28	16	20	23	20
	,, Remaining Dec. 31st	20	22	18	20	22	25
SURGICAL TUBERCULOSIS.	No. in Hospital Jan. 1st	—	14	11	12	7	4
	Admissions ...	—	25	10	3	10	24
	Total Treated ...	—	39	21	15	17	28
	No. Discharged ...	—	21	10	6	12	14
	,, of Deaths ...	—	3	1	2	1	2
	,, Remaining Dec. 31st	—	15	10	7	4	12
TOTAL.	No. in Hospital Jan. 1st	59	82	131	127	133	65
	Admissions ...	423	557	857	831	684	747
	Total Treated ...	482	639	988	958	817	812
	No Discharged ...	395	493	813	787	699	673
	,, of Deaths ...	34	52	44	38	53	43
	,, Remaining Dec. 31st	53	94	131	133	65	96

Table showing the principal Diseases admitted to the Isolation Hospital, together with the fatalities attached to each :—

Diseases	No. of Cases Admitted			Deaths			Case Fatality per cent.
	Ipswich	Other Districts	Total	Ipswich	Other Districts	Total	
Scarlet Fever ...	251	97	348	1	—	1	0 29
Diphtheria ...	14	9	23	—	1	1	4.35
Other Throat, etc. Diseases—							
Tonsillitis ...	18	10	28	—	—	—	—
Miscellaneous ...	1	1	2	—	—	—	—
Measles and Rubella	59	9	68	1	1	2	2.94
Erysipelas ...	10	7	17	—	—	—	—
Puerperal Pyrexia ...	27	10	37	1	1	2	5.40
Pneumonia ...	16	10	26	2	3	5	19.23
Pertussis	7	1	8	—	—	—	—
Ophthalmia Neonatorum ...	1	3	4	—	—	—	—
Typhoid Group ...	6	3	9	—	—	—	—
Chicken Pox ...	4	—	4	—	—	—	—
Pemphigus ...	2	1	3	1	—	1	33.33
Encephalitis Lethargica ..	1	1	2	1	—	1	50.00
Poliomyelitis ...	7	4	11	—	2	2	18.18
Cerebro Spinal Meningitis ...	3	3	6	2	2	4	66.66
Mumps	1	1	2	—	—	—	—
Miscellaneous Group	17	5	22	1	—	1	4.54
Nils, Queries, etc. ...	29	5	34	—	—	—	—
TOTAL ... (Infectious Group)	474	180	654	10	10	20	3.06
Tuberculosis—							
Pulmonary ...	63	6	69	14	6	20	28.98
Other Forms ...	21	3	24	2	—	2	8 33
TOTAL ... (Tuberculosis Group)	84	9	93	16	6	22	23 65
GRAND TOTAL ...	558	189	747	26	16	42	5.62

SMALL POX HOSPITAL.

This Hospital was not utilised for the treatment of Small-pox during 1937.

HEATHFIELDS MUNICIPAL HOSPITAL.

(As it was termed during 1937.)

The following Table gives the statistics for 1937 :—

	Males.	Females.	Persons.	1936.
No. in Hospital on 1st January, 1937	132	110	242	270
Admissions during the year ...	531	391	922	798
Total treated	663	501	1,164	1,068
Discharges during the year ...	416	282	698	607
Deaths during the year	119	126	245	219
Remaining on 31st December, 1937	128	93	221	242

The duration of stay of the 943 persons who were either discharged from, or died in, the Institution, was as follows :—

(a) Four weeks or less	554
(b) Exceeding four weeks, but under 13 weeks	249
(c) Exceeding 13 weeks	140

The types of cases admitted are indicated briefly in the following rough classification of some of the principal diseases or groups of diseases dealt with :—

Types of Cases.	Nos. Admitted.			
	1934	1935	1936	1937
Dementia	45	60	52	67
Senile Dementia	4	14	22	19
Epilepsy	17	21	18	24
Other diseases of nervous system ...	62	66	83	79
Heart diseases	75	57	83	74
Senile decay	24	45	47	44
Diseases of skin	30	27	23	61
Bronchitis	52	63	65	59
Cancer	29	42	47	61
Tuberculosis	20	13	28	10
Maternity	20	29	14	30
Violence	19	31	23	25

The age distribution of the admissions was as follows :—

Age Periods.	No. Admitted.			
	1934	1935	1936	1937
Under 1 year ...	48	47	43	65
1—25 years ...	78	90	108	127
25—45 ,, ...	134	134	143	166
45—65 ,, ...	159	198	232	274
65—85 ,, ...	226	224	233	256
Over 85 ,, ...	21	29	39	34
Total ...	666	722	798	922

AMBULANCE SERVICE.

The appended Table indicates the journeys and mileage run during 1937, as compared with the previous year, and the average of the five years 1931—1936.

SERVICE.		Average 1931 – 1935 (inclusive).	1936	1937
AMBULANCE.				
Ipswich ...	Journeys	575	349	421
	Miles ...	2441	1540	2047
Out of Borough ...	Journeys	135	138	154
	Miles ...	3648	5167	4404
Total ...	Journeys	710	487	575
	Miles ...	6089	6707	6451
BEDDING VANS				
Collection of Bedding	Journeys	256	249	374
	Miles ...	1946	2136	2434
Return of Bedding	Journeys	96	96	206
	Miles ...	896	957	1332
Collection of Meat	Journeys	70	18	98
	Miles ...	347	137	748
Port Work Pin Mill	Journeys	1	—	—
	Miles ...	24	—	—
Small Pox Hospital	Journeys	20	—	—
	Miles ...	103	—	—
Other Journeys	Journeys	125	304	270
	Miles ...	1200	1921	1954
Total ...	Journeys	568	667	948
	Miles ...	4516	5151	6468

The two new vans were brought in use on the 25th March, 1937, and have proved very valuable in connection with the Hospital and disinfection services.

LABORATORIES.

The work carried out in the Laboratory of this Department since 1921 is as follows :—

Year.	SWABS from Cases of Diphtheria or Suspected Diphtheria.			SPUTA from Actual or Suspected Cases of Tuberculosis.		
	Examined.	Positive.	Per cent. Positive.	Examined	Positive.	Per cent. Positive.
Average						
1921-25	1,260	240	19%	218	52	24%
1926-30	1,560	239	15%	236	68	29%
1931-35	4,231	481	11%	270	74	27%
1931	5,023	793	16%	232	52	22%
1932	4,847	679	14%	234	62	26%
1933	3,171	285	9%	312	85	27%
1934	3,640	274	7%	289	80	27%
1935	4,474	375	8%	283	89	31%
1936	4,116	375	9%	400	128	32%
1937	1,774	73	4%	476	157	34%

3,146 Urines were examined in connection with the Ante-Natal Clinic, with the following results :—

Albumen, trace	195
Albumen, cloud	14
Sugar	18
Pus	4

Various examinations were carried out at other Laboratories on behalf of the Local Authority during 1937, and details of the cost are appended :—

		£ s. d.
East Suffolk County Council Laboratory—		
(a) Ordinary Specimens	£64 16 0	
(b) Specimens under V.D. Scheme ...	64 1 4	
		128 17 4
East Suffolk Hospital Laboratory—		
(a) Ordinary Specimens	£13 3 9	
(b) Micro. Exams. by M.O. of V.D. Clinic	£55 16 6	
		69 0 3
Public Analyst (W. L. Sutton, Norwich)—		
Specimens sent by Sanitary Inspector (and referred to in his report) ...		142 2 2
	Total Cost	£345 19 9

In addition, under the V.D. Scheme, the following specimens were examined at the East Suffolk County Council Laboratory :—

Nature of Test	Number of Tests in respect of Patients under Care of:—		
	Treatment Centre	Hospitals and other Institutions	Private Practitioners
MICROSCOPICAL— For detection of Gonococci	—	—	8
SERUM TESTS— For Wasserman reaction ...	52	14	32
CEREBRO SPINAL FLUID TESTS— Wasserman reaction ...	—	2	
CULTURES	60	—	—
TOTAL	112	16	40

The cost of this service was £64 1s. 4d.

HEALTH EDUCATION.

The usual distribution of "Better Health" booklets took place each month throughout the year.

The Committee has six Empire Marketing Board Poster Frames in various positions in the town and on these are displayed a different set of posters each month. These posters are purchased from the Central Council for Health Education.

No "Health Week" was held during 1937, as the Committee decided to co-operate with the Ministry of Health in six months' national Publicity Campaign which commenced in October, 1937, and terminated in March, 1938.

Posters and leaflets were supplied by the Ministry and displayed and distributed throughout Ipswich by the Department.

The posters were displayed on the hoardings and special boards in various parts of the town, while small bills and cards were exhibited in the trolley-'buses, offices, shops, etc.

The leaflets were overprinted with particulars as to our various clinics and were distributed to parents through the schools and various clinics, etc.

The campaign served a very useful purpose and, owing to the length of time it was spread over, was particularly valuable, not only by bringing the Health Services to the notice of the public, but by maintaining their interest in our schemes.

VACCINATION.

There was no change during 1937 in the Vaccination Scheme.

The figures in the following Table are supplied by the Vaccination Officers :—

	Ipswich Eastern.		Ipswich Western.		Ipswich	
	Nos.	Per cent.	Nos.	Per cent.	Nos.	Per cent.
No of Children Registered during 1937	1033	—	490	—	1523	—
Cases Vaccinated	169	16.4	105	21.4	274	18.0
No of objections to Vaccination	811	78.5	351	71.6	1162	76.3
No. of Infants insusceptible ...	—		—			
No. of Infants who died unvaccinated	24	5.1	18	7.0	42	5.7
No of Children who left the district	17		12		29	
Postponed or cases in the hands of the Public Vaccinator ...	12		4		16	

The percentage of children vaccinated during the last five years is given below :—

1933	...	17.4%
1934	...	20.3%
1935	...	19.5%
1936	...	15.6%
1937	...	18.0%

VENEREAL DISEASES.

REPORT RELATING TO ALL PERSONS WHO WERE TREATED AT THE TREATMENT CENTRE AT IPSWICH DURING THE YEAR ENDING DECEMBER 31st, 1937.

The total number of attendances is roughly average. There has been, however, an increase in the number of cases of venereal disease attending for the first time. This is accounted for in part by a number of already infected individuals moving to this area from the distressed areas and continuing treatment here. Also in part by efforts to induce "contacts" to report for examination, and, if required, treatment. This applies in particular to female cases of gonorrhœa, the number of which attending shows an increase of 300%.

The number of cases treated in 1937 are given in the appended Table :—

	Males.	Females.	Persons.
Gonorrhœa	138	44	182
Syphilis	108	66	174
Soft Chancre	1	—	1
Other conditions	35	22	57
Total 1937	**282**	**132**	**414**
Total 1936	238	127	387
Average 1931—1935 ...	236	128	364

The number of cases dealt with *for the first time* are given below classified according to residence :—

Year	Ipswich	East Suffolk.	West Suffolk.	Essex.	Total.
Average 1931—1935	126	64	2	12	204
1932	128	64	1	13	206
1933	113	67	4	10	194
1934	127	57	3	7	194
1935	134	67	2	12	215
1936	112	46	9	8	175
1937	145	66	1	11	223

OUT-PATIENT ATTENDANCES.

(a) For individual attention by Medical Officer.

	Males.	Females.	Persons.
Gonorrhœa	1,014	213	1,227
Syphilis	656	319	975
Soft Chancre	6	—	6
Other conditions	33	72	105
Total 1937	**1,709**	**604**	**2.313**
Total 1936	1,397	522	1,919
Average 1931 – 1935 ...	1,613	850	2,463

(b) For intermediate treatment (irrigation, dressing, etc.)

	Males.	Females.	Persons
Gonorrhœa	3,511	695	4,206
Total 1936 ...	3,173	420	3,593
Average 1931—1935 ...	3,833	649	4,482

(c) Total.

	Males.	Females.	Persons.
Gonorrhœa	4,525	908	5,433
Syphilis	656	319	975
Soft Chancre	6	—	6
Other conditions ...	33	72	105
Total 1937 ...	**5,220**	**1,299**	**6,519**
Total 1936 ...	4,570	942	5,512
Average 1931—1935 ...	5,446	1,498	6,944

Total number of attendances of all patients residing in each area :—

Year.	Ipswich.	East Suffolk.	West Suffolk.	Essex.	Total
Average 1931—1935	5,731	1,032	44	137	6,944
1932	5.042	992	25	116	5,786
1933	4 653	926	61	113	7 599
1934	6,499	1,041	49	127	7,148
1935	6 532	1,147	46	133	7,858
1936	4,365	997	26	124	5,512
1937	5.327	956	69	167	6,519

IN-PATIENT DAYS.

Number of Patients and aggregate number of "In-patient days" of treatment :—

	Males.		Females.		Persons.	
	Patients	Days.	Patients	Days.	Patients.	Days.
Syphilis	—	—	1	21	1	21
Gonorrhœa ...	4	58	11	444	15	502
Soft Chancre ...	—	—	—	—	—	—
Other conditions ...	—	—	—	—	—	—
Total 1937 ...	**4**	**58**	**12**	**465**	**16**	**523**
Total 1936 ...	13	209	4	74	17	283
Average 1931—1935 ...	8	116	9	273	17	389

The following Table shows the "In-patient days" classified according to areas :—

Year.	Ipswich.	East Suffolk.	West Suffolk.	Essex.	Total.
Average 1931—1935	**167**	162	36	24	389
1932	**242**	222	21	18	503
1933	**87**	194	—	16	297
1934	**202**	169	93	31	495
1935	**155**	162	64	15	396
1936	**105**	123	55	—	283
1937	**93**	411	2	17	523

EXAMINATION OF PATHOLOGICAL MATERIAL AND NUMBER OF DOSES OF ARSENOBENZENE COMPOUNDS GIVEN.

Year	Specimens Examined by Medical Officer at Centre.		Specimens Examined by an Approved Laboratory.		No. of doses of Arsenobenzene Compounds.				
	Spirochaetes	Gonococci	Wassermanns	Gonococci	Ipswich	East Suffolk	West Suffolk	Essex	Total
Average 1931—1935	5	186	121	97	223	117	11	40	391
1932	3	187	144	78	253	147	8	54	462
1933	8	193	120	101	241	83	25	59	408
1934	4	155	117	73	267	144	15	16	442
1935	3	187	60	104	158	50	3	3	214
1936	2	199	67	67	113	47	20	12	192
1937	6	313	93	88	174	77	10	29	290

WATER SUPPLY.

The following is the return of the approximate amounts of water supplied from the various sources during 1937 :—

	Gallons.
Total Water from Wells in Waterworks Street ...	331,534,000
Total Water from Wells at Whitton	706,316,000
Total Supply, all sources	1,037,850,000

		Gallons.
Supply, per head, per day, in Borough, including Trades		... 28.94
,, ,, ,, ,,	1936 ...	... 27.4
,, ,, ,, ,,	1935 ...	... 28.2
,, ,, ,, ,,	1934 ...	... 27.38
,, ,, ,, ,,	1933 ...	... 28.3
,, ,, ,, ,,	1932 ...	... 26.0
,, ,, ,, ,,	1931 ...	... 25.5

I am indebted to Mr. E. McLaughlin, the Borough and Water Engineer, for the figures.

The water is analysed at frequent intervals. No question has ever risen with regard to the purity of the Waters.

SWIMMING BATHS.

In my reports for 1934, 1935 and 1936, I gave particulars of a series of experiments upon the purification of the water of swimming baths.

The increasing popularity of swimming amongst all classes in the community and the demand for more swimming baths, together with the lack of real knowledge on the proper methods of preserving the purity of the water in the baths, rendered these enquiries necessary.

The series has now been completed and, as a consequence, a definite policy has been evolved.

So far as our experiments are concerned, and the results, they apply only to the Ipswich public water supply. It is quite probable that they are applicable to other deep well waters, with similar chemical composition to that of the Ipswich well.

The natural colour of the Ipswich water when in a large bath with a white bottom and sides is a light blue, which looks very nice and inviting. Our first problem was how to retain this colour. This was solved in due course, and by the adoption of the appropriate treatment the natural colour of the water can be preserved indefinitely.

The psychological effect of the clear appearance and pleasant colour of the water is of the first value. It is obtained by adjusting the proportions of alkali and chlorine in the water, so that the pH is maintained at about 8.2 or 8.3 and the chlorine at about .5 to .7 parts per million. These are the proportions that satisfy the colour requirements of our water.

The standards which we have established for the Ipswich bath waters as a result of experiment and experience are as follows:—

(1) Colour—this has been explained.

(2) Sterilisation by chlorine. Our experiments have established that the life of B. Coli in a water containing .5 parts of chlorine per million is so short as to be negligible. Accordingly this has been adopted as the standard to which to work.

(3) Alkalinisation fulfils the important functions of neutralising the acidity produced from the bodies of the swimmers and neutralising the green colouration produced by the chlorine, the result being the maintenance of the normal blue colour of the water. Anyone working with a similar water to ours can get the same result by maintaining the pH at 8.2 or 8.3.

(4) All the water entering the bath is aerated.

(5) Alumina is added to act as a coagulant.

(6) Filtration through sand filters of size appropriate to the size of the bath and the number of swimmers.

I consider that the speed of filtration is a matter of the first importance and that the rates aimed at in the majority of baths are far too low.

In the new baths recently opened in our town we have arranged a pumping and filtration capable of passing the whole of the bath water through the filters every three hours if the number of swimmers demands it. This is one of the matters where the expert bath superintendent comes in. If he thinks the number of swimmers does not need this speed he uses a six-hour turn-over. Under conditions of high pressure a greater speed of turn-over even than three hours can be attained.

The result of all these procedures, always subject to highly skilled supervision, is to maintain a clear, attractive bath water at all times and under all conditions. The vigilance of the supervision must never relax for one moment, and this indeed is the very essence of the contract.

I congratulate the Corporation of Ipswich on the competence and keenness of their bath superintendent, Mr. T. Geary. I was constantly struck by his enthusiasm during the whole of the long series of our experiments, and a substantial proportion of the success achieved was due to his high knowledge of his business.

It is an interesting psychological fact that since we have secured the normal appearance of the water, complaints about chlorine have practically disappeared, showing that the majority of the complaints that used to be made were really psychological in origin.

The Piper's Vale open-air bath was opened in 1937, and was at once a popular success. Its water was dealt with in exactly the way that has been described.

At the time of writing, the large Broom Hill open-air bath has been opened, so that Ipswich is now supplied with four public swimming baths, two of which are open-air. All are heated in exactly the same way.

There is also an up-to-date swimming bath at the Northgate School, and there is a swimming bath at the Ipswich School.

Altogether the position of swimmers in Ipswich is vastly improved both as regards the high standard of purification now attained in all the baths, and in the amount of swimming bath accommodation available.

STREET CLEANSING AND COLLECTION AND DISPOSAL OF HOUSE REFUSE.

CLEANSING SUPERINTENDENT'S REPORT.

Table indicating the cost of Public Cleansing in Ipswich since 1927-28, together with the average cost for 110 Cities and Boroughs, 1936-7.

YEAR	Number of Houses	Population.	Average weight per 1,000 population.	Net Expenditure per ton per annum.			Net Expenditure per 1,000 population per annum.			Net Expenditure per 1,000 houses per annum.			Rate in the £.	Street Cleansing.		
				Collection.	Disposal.	Total.	Collection.	Disposal.	Total.	Collection.	Disposal.	Total.		Cost per 1,000 population.	Cost per 10,000 yds. of streets cleansed.	Cost per 1,000 gullies emptied.
			cwts.	s d	s d.	s. d	£	£	£	£	£	£	d.	£ s.	s. d.	£
1927-28	21688	84140	7.7	12 2	10 3	22 5	86	72	158	360	305	665	7.49	83 8	—	—
1928-29	22404	85990	7.7	11 5	10 3	21 8	81	72	153	334	300	634	7.22	94 6	—	—
1929-30	22986	85800	8.5	12 0	6 10	18 10	91	52	143	339	193	532	6.72	90 5	22 7	—
1930 31	23280	86860	8 4	11 11	7 10	19 9	92	60	152	344	225	569	7.04	89 7	21 3	—
1931 32	23413	87770	8.3	12 2	8 3	20 5	93	66	159	349	247	596	7.30	89 7	21 9	—
1932 33	24115	88700	8.5	11 11	7 6	19 5	92	58	150	338	214	552	6.70	86 16	21 2	47.2
1933 34	24870	89070	8.5	11 8	7 5	19 1	91	57	148	326	206	532	6.60	90 8	21 1	47.1
1934-35	25678	90157	8.9	11 3	7 9	19 0	92	64	156	325	224	549	6.60	97 15	22 7	34.5
1935-36	27856	91400	9 2	12 2	5 9	17 11	104	49	153	339	161	500	6.60	101 0	8 3	25.0
1936-37	29056	92470	9.6	12 2	4 3	16 5	106	37	143	341	120	461	6.00	105 0	8 11	21.0
Average for 110 cities and boroughs (1935-1936)	—	—	15.9	10 7	5 10	15 7	152	86	238	679	390	1049	—	172 0	—	—

I submit herewith my report, together with a comparative Table of the Public Cleansing costs for the Borough of Ipswich for the year ended March 31st, 1937.

16,233 tons of house and trade refuse were collected and disposed of during the year.

By	Incineration	2,110 tons.
,,	Controlled Tipping ...	14,123 ,,

The nett cost of the combined service was £13,367.

The population during the year has increased by 1,070, and the number of premises by 1,200.

Controlled tipping was further extended during the year and 83% of the total output was dealt with in this manner. The remainder was treated at the Destructor Works.

The cost of Street Cleansing during the year was £9,778, and Gully Cleansing £722. Snow Removal during this period cost £97.

SUMMARY OF THE COST OF SERVICES UNDERTAKEN BY THE PUBLIC CLEANSING DEPARTMENT, 1936-1937.

Cleansing Costs	Total Gross Expenditure.	Revenue	Net Cost	Net Cost per head of population.
Collection of House and Trade Refuse ...	£10,115 0 0	£228 0 0	£9,887 0 0	2s. 1.6d.
Disposal of House and Trade Refuse ...	£3,987 0 0	£507 0 0	£3,480 0 0	9d.
Street Cleansing including Gully Cleansing and Snow Removal	£10,597 0 0	——	£10,597 0 0	2s 3 5d.
Total	£24,699 0 0	£735 0 0	£23,964 0 0	5s. 2.1d.

L. A. Jones,
Cleansing Superintendent.

CHIEF SANITARY INSPECTOR'S ANNUAL REPORT, 1937.

Mr. H. L. Baty, Chief Sanitary Inspector, reports as follows :—

Analysis of Inspections.	1937
Private Houses	5,200
Houses visited or measured for "Permitted Number"	5,506
Houses let in Lodgings	4
Van Dwellings	36
Common Lodging Houses	44
Houses with reference to application for Council House	22
Houses prior to removal to a Council House ..	976
Houses subsequent to removal to a Council House ...	136
Damp Houses	79
Overcrowded Houses	27
Verminous Houses	351
Total Inspections of Housing conditions ...	12,381
Slaughter-houses	2,886
Butchers' Shops	1,192
Cowsheds	62
Dairies and Milk Shops	348
Purveyors of Milk	17
Bakehouses	101
Ice Cream Premises	7
Fried Fish Shops	131
Cafés and Restaurants	51
Total Inspections with reference to Food ...	4,795
Rivers	9
Refuse Dumps	20
Visits after Infectious Diseases	198
Shops	2,677
Factories, Workshops, &c.	101
Schools	11
Places of Entertainment	44
Urinals	95
Stables	30
Piggeries	35
Offensive Trade Premises	141
Markets	76
Smoke Nuisances	27

Analysis of Inspections—*continued.*	1937
Cesspools	88
Complaints Investigated	1,182
Visits *re* Works in Progress and Completed	158
Interviews at Office	2,101
At Port	165
Wholesale Warehouses	35
Offices	11
Miscellaneous Inspections	17
Total of other Inspections	7,221
Total Inspections made during the year	24,397

Analysis of Work Carried Out.	1937
Drains inspected	189
Drains smoke tested	78
Drains water tested	41
Drains reconstructed	7
Drains repaired	57
Drains unblocked and cleansed	27
Inspection chambers provided	11
Inspection chambers repaired	7
Ventilating shafts repaired	2
New water-closets provided	29
New urinals provided	1
New sinks and waste pipes provided	8
Water-closets cleansed	2
Water-closets repaired	63
Water-closet cisterns repaired	21
Lavatory basins provided	1
New water-closet pans provided	18
New drains provided	23
New gullies fixed	4
Cesspools cleansed	4
Total Drainage Works carried out	593

Analysis of Work Carried Out—*continued.*	1937
General repairs of houses	7
Chimney stacks repaired	8
Roofs repaired	68
Eaves-gutters repaired or renewed	41
Rain water pipes repaired or renewed	14
Brickwork repointed	13
Dampness remedied	18
Yards re-paved or yard pavings repaired ...	12
Wash-houses repaired	5
New floors provided	31
Scullery floors concreted	10
Ceiling plaster repaired	17
Wall plaster repaired	24
New fireplaces provided	5
Fire grates repaired	5
Coppers repaired	21
Sash-cords renewed	17
Windows repaired	9
New windows provided	4
Doors repaired	8
Door sills provided	3
Air bricks provided	5
Ash Bins provided	22
Total works carried out to Houses	367
Premises limewashed	5
Dirty houses cleansed	14
Urinals cleansed	5
Removals of manure	8
Removals of refuse	28
Hydrogen cyanide fumigations	353
Sulphur dioxide fumigations	114
Liquid insecticide treatments	108
Wasps' nests destroyed	13
Total of other works carried out	648
Total works carried out during the year ...	1,608

HOUSING.

1.—Inspection of Dwelling-houses during the year:—

(1) (a) Total number of dwelling-houses inspected for housing defects under Public Health or Housing Acts 10,706

(b) Number of inspections made for the purpose ... 11,846

(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 503

(b) Number of inspections made for the purpose ... 1,643

(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation 487

(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation 171

2.—Remedy of Defects during the year without Service of formal Notices:—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers 329

3.—Action under Statutory Powers during the year:—

(a)—Proceedings unders Sections 9, 10 and 16 of the Housing Act, 1936:—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs ... ... nil.

(2) Number of dwelling-houses which were rendered fit after service of formal notices:—

(a) By owners ... ... nil.

(b) By Local Authority in default of owners ... nil.

(b)—Proceedings under Public Health Acts:—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied ... 352

(2) Number of dwelling-houses in which defects were remedied after service of formal notices:—

(a) By owners 12

(b) By Local Authority in default of owners ... nil.

(c)—Proceedings under Sections 11 and 13 of the Housing Act, 1936:—

(1) Number of dwelling-houses in respect of which Demolition Orders were made 8

(2) Number of dwelling-houses demolished in pursuance of Demolition Orders 3

(d)—Proceedings under Section 12 of the Housing Act, 1936:—

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made ... nil.

(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit ... nil.

4.—Housing Act, 1936, Part IV.—Overcrowding:—

(a) (i) Number of dwellings overcrowded at the end of the year 107

(ii) Number of families dwelling therein 107

(iii) Number of persons dwelling therein 919

(b) Number of new cases of overcrowding reported during the year 5

(c) (i) Number of cases of overcrowding relieved during the year 94

(ii) Number of persons concerned in such cases ... 662

(d) Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding ... ... nil.

(e) Any other particulars with respect to overcrowding conditions upon which the Medical Officer of Health may consider it desirable to report ... nil.

WATER SUPPLY.

Samples taken from Corporation Supplies	14
Samples taken from Private Supplies	2

INFECTIOUS DISEASES.

Infectious Disease inquiries made	198
Infectious Disease cases removed	24

PROGRESS OF NOTICES.

Preliminary:—

Served	188
Completed	187

Statutory :—	
Served	9
Completed	12
Verbal :—	
Given	155
Completed	142
Letters issued	1,505

Proceedings :—

One prosecution was taken for failing to abate a nuisance from an accumulation of manure and a dirty condition of pig styes. Defendant was fined £2 and a Court Order was made to abate the nuisance.

One prosecution was taken for failing to abate a nuisance from a deposit of foul refuse. Defendant was fined £3 and a Court Order was made to abate the nuisance.

SHOPS ACTS, 1912-1936.

Visits	2,062
Re-visits	355
New shops registered	65
Verbal warnings given for contraventions of the Acts	365
Written warnings given for contraventions of the Acts	207
Number of premises where additional or improved means of heating were provided	22
Number of premises where additional or improved means of ventilation were provided	4
Number of premises where additional or improved sanitary conveniences were provided	26
Number of premises where Exemption Certificates were granted, relating to sanitary conveniences, under Section 10 of the Shops Act, 1934	5
Number of premises where Exemption Certificates were refused, relating to sanitary conveniences, under Section 10 of the Shops Act, 1934	4
Number of premises where Exemption Certificates were granted, relating to washing facilities under Section 10 of the Shops Act, 1934	1
Number of premises where Exemption Certificates were refused, relating to washing facilities, under Section 10 of the Shops Act, 1934	2
Number of premises where additional or improved means of lighting were provided	2

Number of premises where washing facilities were provided	10
Number of premises where facilities for taking meals were provided	1

Proceedings :—

During the year 3 prosecutions were taken for contraventions of the Shops Act, 1912. Two cases were fined ten shillings and one case was dismissed on payment of costs.

Eight prosecutions were taken for contraventions of the Shops (Hours of Closing) Act, 1928. Seven cases were fined ten shillings and one case was fined twenty shillings.

FOOD AND DRUGS (ADULTERATION) ACT, 1928.

The following Table shows the samples taken during the year :—

Article.	Samples taken.		Samples genuine.		Samples adulterated.	
	Formal	Informal.	Formal.	Informal	Formal.	Informal.
Milk	75	—	60	—	15	—
Cream	—	6	—	6	—	—
Butter	—	21	—	21	—	—
Margarine	—	6	—	6	—	—
Lard	—	5	—	5	—	—
Beef Dripping ...	—	1	—	1	—	—
Potted Meat	1	6	1	3	—	3
Meat Paste	—	2	—	2	—	—
Tinned Condensed Milk	—	7	—	7	—	—
Tinned Cream ...	—	3	—	3	—	—
Tinned Soup	—	1	—	1	—	—
Tinned Fruit ...	—	9	—	9	—	—
Tinned Fish	—	5	—	5	—	—
Jam	—	4	—	4	—	—
Lemon Curd	—	1	—	1	—	—
Honey	—	2	—	2	—	—
Pea Flour	—	1	—	1	—	—
Coffee	—	1	—	1	—	—
White Pepper ...	—	2	—	2	—	—
Malt Vinegar ...	—	2	—	2	—	—
Camphorated Oil ...	—	2	—	2	—	—
Olive Oil	—	1	—	1	—	—
Glycerine	—	1	—	1	—	—
Glycerine, Lemon and Ipecacuanha Mixture	—	1	—	1	—	—
Sulphur Ointment ...	—	1	—	1	—	—
Boracic Ointment ...	—	1	—	1	—	—
Totals	76	92	61	89	15	3

The following actions were taken during the year :—

Sample No.	Article.	Offence.	Action
6	Potted Meat	Contained added starch	Vendor cautioned.
42	Potted Meat	Contained added starch	Vendor cautioned.
48	Potted Meat	Contained added starch	Vendor cautioned.
49	Milk	3% deficiency in milk-fat	Vendor cautioned.
54	Milk	1% deficiency in milk-fat	Vendor cautioned.
55	Milk	2% deficiency in milk-fat	Vendor cautioned.
68	Milk	1% deficiency in milk-fat	Vendor cautioned.
69	Milk	3% deficiency in milk-fat	Vendor cautioned.
76	Milk	20% deficiency in milk-fat	Vendor cautioned.
78	Milk	2% deficiency in milk-fat	Vendor cautioned.
79	Milk	3% deficiency in milk-fat	Vendor cautioned.
85	Milk	15% deficiency in milk-fat	Vendor cautioned.
87	Milk	21% deficiency in milk-fat	Vendor cautioned.
88	Milk	10% deficiency in milk-fat	Vendor cautioned.
136	Milk	18% deficiency in milk-fat	Proceedings taken against vendor. Fined £10.
142	Milk	9% deficiency in milk-fat	Vendor cautioned.
144	Milk	2% deficiency in milk-fat	Vendor cautioned.
145	Milk	5% deficiency in milk-fat	Vendor cautioned.

BACTERIOLOGICAL EXAMINATION OF MILK.

Number of samples examined for the presence of bacteria	84
Number of samples examined by animal inoculation for the presence of tubercle bacilli	21

MILK AND DAIRIES ORDER, 1926.

Number of Inspections of Dairies and Milk Shops ...	348
Number of Inspections of Purveyors of Milk ...	17
Number of Inspections of Cowsheds	62

DISEASES OF ANIMALS ACTS, 1894-1927.
TUBERCULOSIS ORDER, 1925.

No cows were sent in by Veterinary Inspector for slaughter during the year.

ANIMALS (IMPORTATION) ORDER, 1930.

No contravention of this Order was found during the year.

ANTHRAX ORDER, 1928.

No cows were dealt with under this Order during the year.

PUBLIC HEALTH (MEAT) REGULATIONS, 1924.

The number of pigs' carcases marked during the year in accordance with Part III. of the Regulations was	553
The number of Inspections of Butchers' Shops made during the year was	1,192

SLAUGHTER OF ANIMALS ACT, 1933.

Number of slaughtermen granted licences during the year	61
Number of slaughtermen refused licences during the year	nil.

SLAUGHTER-HOUSES.

The number of private slaughter-houses in use in the Borough at the end of the year was	11
The number of visits made to the slaughter-houses during the year was	2,886

The number of carcases examined during the year were—

Cattle	4,566
Sheep	3,342
Pigs	67,490
Calves	222
Total ...	75,620

The number of pigs examined ante-mortem during the year was 30,415.

MEAT AND OTHER FOOD INSPECTION.

The undermentioned foodstuffs were condemned as unfit for human consumption during the year :—

Carcases of beef	19
Beasts' lungs	297
Beasts' heads and tongues	223
Beasts' livers	201
Beasts' kidneys	45
Beasts' hearts	5
Beasts' mesenteries	67

Beasts' caul fat	44
Carcases of mutton	29
Sheep forequarters	1
Sheep plucks	1
Sheep livers	14
Carcases of veal	2
Carcases of pork	234
Pork, in lbs. (including 7,430 heads)	69 tons 14 cwts. 3 qrs. 21 lbs.
Pigs' heads	8,745
Pigs' legs	14
Pigs' skirts	1,035
Pigs' plucks	5,193
Pigs' lungs	124
Pigs' livers	2,750
Pigs' kidneys	7,359
Pigs' sweetbreads	210
Pigs' spleens	46
Pigs' maws	153
Pigs' complete intestines	3,329
Pigs' large intestines	1,038
Pigs' small intestines	2,259
Pigs' part intestines	1,258
Pigs' mesenteries	2,392
Pigs' mesenteric fats	1,105
Fish (stones)	2
Herring roes	200
Rabbits	87
Jellied veal (lbs.)	6
Gammons of ham	10
Butter (lbs.)	28
Tinned Foods (tins):—	
Meat	96
Fish	77
Fruit	1,471
Vegetables	159
Chicken	79
Liquid eggs	61
Milk	7
Cream	4

Bottled foods (bottles or jars)—

Jam	15
Pickles	11
Meat Paste	6
Fish Paste	16

FERTILISERS AND FEEDING STUFFS ACT, 1926.

During the year one sample of fertiliser was obtained. The sample was found to comply with the Statutory Statement.

RAG FLOCK ACTS.

During the year five visits were made to premises where rag flock was used. No samples were taken for analysis.

RATS AND MICE (DESTRUCTION) ACT, 1919.

Visits to premises re rat infestation	293

DISINFECTION.

The following table gives the number of rooms, articles of clothing, etc., disinfected, or dealt with, during the year :—

Infectious Diseases :—	
Rooms	242
Bedding	2,879
Tuberculosis and Cancer :—	
Rooms	121
Bedding	874
Vermin :—	
Rooms and staircases	373
Bedding	10,825
Articles from Isolation Hospital	7,157
Articles destroyed	152
Library and school books	510
Scabies baths given	458
Scabies clothing	3,934
Hospital Wards	14

ERADICATION OF BED BUGS.

(1)	(a) Number of Council houses found to be infested	92
	(b) Number of other houses found to be infested	52
	(i) Number of Council houses disinfested ...	92
	(ii) Number of other houses disinfested ...	52

(2) The methods employed for freeing infested houses from bed bugs are :—

(i) Use of liquid insecticides.
(ii) Sulphur dioxide fumigations.

(3) The methods employed for ensuring that the belongings of tenants are free from vermin before removal to Council houses are as follows :—

Bedding, furniture and rooms are inspected by a sanitary inspector and, if found infested, bedding is destroyed, or disinfested by steam, and furniture is destroyed, or fumigated, either by sulphur dioxide or hydrogen cyanide.

(4) The work of disinfestation is carried out by the Local Authority in the case of steam disinfestation of bedding, or sulphur dioxide fumigation of furniture. In the case of disinfestation of furniture with hydrogen cyanide, the work is done on behalf of the Local Authority by a firm of contractors operating from London.

(5) The measures taken by way of supervision or education of tenants to prevent infestation or re-infestation after cleansing are as follows :—

Systematic inspections are made by the sanitary inspectors of all Council houses for this purpose and special attention is given to houses occupied by tenants whose belongings were formerly infested. Advice is given to tenants on this subject and disinfestation is carried out free of charge when any further infestation is discovered.

SANITARY CONDITIONS OF MUSIC HALLS AND CINEMAS.

Number of visits paid during performances ... 34

MORTUARY.

During the year 67 bodies were admitted to the Mortuary. In 44 cases post-mortem examinations were held.

FACTORIES AND WORKSHOPS, YEAR 1937.

1.—Inspection of Factories, Workshops and Workplaces :—

Premises.	Number of Inspections.	Number of Written Notices.	Number of Occupiers Prosecuted.
Factories (including Factory Laundries)	21	—	—
Workshops (including Workshop Laundries)	60	1	—
Workplaces (other than Outworkers' Premises ...	20	1	—
Total	101	2	—

2.—Defects found in Factories, Workshops and Workplaces :—

Particulars.	Number of Defects.			Number of Offences in respect of which Prosecutions were instituted.
	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under Public Health Acts :—				
Want of Cleanliness ...	18	18	—	—
Want of Ventilation ...	2	2	—	—
Overcrowding	—	—	—	—
Want of Drainage of Floors	1	1	—	—
Other Nuisances ...	—	—	—	—
Sanitary Accommodation				
Insufficient	2	2	—	—
Unsuitable or defective ...	3	3	—	—
Not separate for Sexes ...	2	2	—	—
Offences under the Factory and Workshop Acts :—				
Illegal Occupation of Underground Bakehouse (s. 101)	—	—	—	—
Other Offences	—	—	—	—
TOTAL	28	28	—	—

3.—Outwork in Unwholesome Premises, Section 108.

Number of inspections of outworkers' premises, 27.

No occasion was found for the service of a Notice under this Section.

H. L. BATY,
Chief Sanitary Inspector.

PORT OF IPSWICH HEALTH AUTHORITY.
REPORT FOR 1937.

I.—Amount of Shipping entering the Port during the year 1937 :—

TABLE A.

		No.	Tonnage.	No. Inspected		No. reported to be defective.	No. of vessels on which defects were remedied.	No. of vessels reported as having or having had during the voyage Infectious Disease on board.
				By the Medical Officer of Health.	By the Sanitary Inspector.			
Foreign	Steamers	81	115,772	—	64	18	14	—
	*Motor ...	73	37,812	—	21	4	3	—
	Sailing ...	—	—	—	—	—	—	—
	Fishing ...	—	—	—	—	—	—	—
Total Foreign		154	153,584	—	85	22	17	—
Coastwise	Steamers	398	128,888	—	14	4	4	—
	*Motor ...	379	76,677	—	14	3	2	—
	Sailing ...	931	57,984	—	52	8	8	—
	Fishing ...	—	—	—	—	—	—	—
Total Coastwise		1,708	263,549	—	80	15	14	—
Total Foreign and Coastwise		1,862	417,133	—	165	37	31	—

* Includes mechanically propelled vessels other than steamers.

II.—Character of Trade of Port :—

TABLE B.

(a) Passenger Traffic during the year.—Nil.

(b) Cargo Traffic.—Principal imports : Coal, oil, spirits, grain, timber, road stone, sand, shingle, phosphates, fertilisers, feeding stuffs, and ore. Principal exports : grain, flour, vegetable oils, sugar, oils, spirits, malt, molasses, feeding stuffs, and burnt ore.

(c) Foreign Ports from which vessels arrive : Antwerp (Belgium), Amsterdam, Rotterdam, Wormaveer (Holland), Hamburg, Stettin (Germany), Klaipeda, Danzig, Gdynia, Baltic and White Sea Ports, Novorossisk, Odessa (Black Sea), Huelva (Spain), Tunis, Sfax, Suez (Africa), Abadan (Persian Gulf), Curacao (Dutch East Indies), Nassau (Pacific Islands), Antilla (Cuba), Rosario, San Lorenzo, San Pedro, San Nicolas, Monte Video, Buenos Aires, Villa Constitucion (S. America).

III.—Water Supply :—

(a) For the Port.—Water Supply is obtained from the Ipswich Corporation's water mains.

(b) For Shipping.—Shipping in the Dock and at Cliff Quay obtain water from the Ipswich Corporation's water mains. Shipping at the deep water mooring berth in Butterman's Bay use a water boat from Harwich.

(c) Number of water boats and their sanitary condition.—One water boat is used. It is owned by the Felixstowe Dock Company and is inspected regularly by the Sanitary Inspector of the Harwich Port Health Authority. The sanitary condition is satisfactory.

IV.—Port Sanitary Regulations, 1933 :—

1. Arrangements for dealing with Declarations of Health :—
A Declaration form is handed to the Master of a vessel from a foreign port either by the Pilot, the Customs Officer or the Port Sanitary Inspector, and, when filled in, is returned to the Port Health Authority either by the Customs Officer or the Port Sanitary Inspector.

2. Boarding of vessels on arrival :—

Vessels from foreign ports are boarded by an Officer of the Port Health Authority either at the deep water mooring berths at Butterman's Bay, which is situated about six miles down the river, or at Cliff Quay, Ipswich, or at the Ipswich Dock.

3. Notification to the Authority of inward vessels requiring special attention (wireless messages, land signal stations, information from pilots, Customs Officers, etc.) :—

Arrangements have been made with the Customs Officers to notify to the Port Health Authority any inward vessel requiring special attention; also, for wireless messages received by local shipping agents, in accordance with the provisions of Article 6 of the Regulations, to be forwarded to the office of the Port Health Authority.

4. Mooring stations designated under Article 10 : (a) within the docks; (b) outside the docks :—

(a) The established inner mooring station is situated at Cliff Quay, Ipswich.

(b) The established outer mooring station is situated at the Anchorage at Butterman's Bay.

5. Particulars of any standing exemptions from the provisions of Article 14 :—

A standing exemption from detention under Article 14 has been granted by the Medical Officer in respect of all unhealthy ships, except those unhealthy on account of cholera, plague, yellow fever, typhus, smallpox or chickenpox.

6. Experience of working of Article 16 :—

No difficulty arose during the year in carrying out the restrictions on boarding or leaving a ship arriving from a foreign port.

7. What, if any, arrangements have been made for :—

(a) Premises and waiting rooms for medical examination.

(b) Cleansing and disinfection of ships, persons and clothing and other articles.

(c) Premises for the temporary accommodation of persons for whom such accommodation is required for the purpose of the Regulations.

(d) Hospital accommodation available for Plague, Cholera, Yellow Fever, Smallpox and other infectious diseases.

(e) Ambulance transport.

(f) Supervision of contacts.

(a) Medical examinations are carried out on board the ship concerned.

(b) On a ship where infectious disease has occurred, disinfection of the infected parts of the ship is carried out by the staff of the Port Health Authority. A cleansing station for persons is established at the office of the Port Health Authority, and further facilities for the cleansing of persons exist at the Ipswich Borough Isolation Hospital and at the Ipswich Smallpox Hospital.

(c) Temporary accommodation is available at the Ipswich Borough Isolation Hospital for persons requiring such accommodation for the purposes of the Regulations.

(d) A smallpox hospital (24 beds) is maintained by the Ipswich Sanitary Authority, and is available for cases of smallpox in the Port.

(e) A motor ambulance, and two motor vans, are available for transport purposes.

(f) Contacts proceeding to places outside the Borough and Port of Ipswich are notified to the Medical Officer of Health of the district to which they are proceeding. Contacts remaining on the ship are kept under observation daily by an officer of the Port Health Authority.

8. Arrangements for the bacteriological or pathological examination of rats for plague :—

The examination of rats for plague is carried out at the laboratory of the East Suffolk County Council, at Ipswich. The number of rats examined for plague during the year 1937 was 13.

9. Arrangements for other bacteriological or pathological examinations :—

Other bacteriological or pathological examinations are carried out at the Ipswich Public Health Department, the East Suffolk County Council Laboratory, and the East Suffolk and Ipswich Hospital, at Ipswich.

10. Arrangements for the diagnosis and treatment of venereal disease among sailors under international arrangements :—

Diagnosis and treatment are carried out at the East Suffolk and Ipswich Hospital.

11. Arrangements for the interment of the dead :—

Nil.

12. Other matters, if any, requiring or receiving attention :—

Nil.

TABLE C.

Cases of Infectious Sickness landed from Vessels :—

Disease	Number of Cases during the year.		No. of Vessels concerned.	Average number of Cases for previous 5 years.
	Passengers.	Crew.		
—	—	—	—	—

TABLE D.

Cases of Infectious Sickness occurring on Vessels during the voyage, but disposed of prior to arrival :—

Disease.	Number of Cases during the year		No of Vessels concerned	Average number of Cases for previous 5 years.
	Passengers	Crew		
—	—	—	—	—

V.—MEASURES AGAINST RODENTS.

(1) Steps taken for detection of rodent plague.

(a) In ships in the Port.

(b) On quays, wharves, warehouses, etc., in the vicinity of the port.

(a) Ships visited by the Port Sanitary Inspector have enquiry and search made on board for unusual mortality of rats or mice.

(b) Premises in the vicinity of the Dock and quays are visited from time to time by the Port Sanitary Inspector and similar enquiries and search are made.

(2) Measures taken to prevent the passage of rats between ships and the shore.

Special measures, such as rat-guarding mooring ropes, are taken, and no evidence has been found of rat migration from ship to shore during the year.

(3) Methods of deratisation of (a) Ships, (b) Premises, in the vicinity of docks or quays.

(a) The Port of Ipswich is not an " approved " port for the purposes of Article 28 of the International Sanitary Convention, 1926 Ships requiring deratisation have therefore to proceed to an " approved " port, the nearest being the ports of London or Dover in the South or the ports of Hull and Goole in the North.

(b) Deratisation of premises in the vicinity of the Dock and quays is carried out by the occupier of the premises concerned, the usual method being the use of traps and poisoned baits.

(4) Measures taken for the detection of rat prevalence in ships and on shore.

The usual inspections are made by the Port Sanitary Inspector. It has not been found necessary to take special measures such as the employment of a full-time rat-catcher.

(5) Rat-proofing.

(a) To what extent are docks, wharves, warehouses, etc., rat proof?

(b) Action taken to extend rat-proofing.

(i) In ships; (ii) on shore.

(a) Many of the buildings, etc., in the vicinity of the docks and quays are very old and are not considered rat-proof. Recently-erected buildings are designed with rat-proofing in mind and are more satisfactory.

(b) Advice is given by the Port Sanitary Inspector to the person concerned where evidence is found of the necessity of extension of rat-proofing of either ships or buildings.

RATS DESTROYED DURING THE YEAR.

TABLE E.
(1) On Vessels.

Number of Rats.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in year.
Black	—	—	—	—	—	—	—	1	—	—	—	—	1
Brown	—	—	—	—	—	—	—	—	—	—	—	—	—
Species not recorded	—	2	5	—	1	7	—	—	5	3	13	3	39
Examined	—	—	—	—	—	—	—	—	—	—	2	—	2
Infected with plague	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE F.
(2) In Docks, Quays, Wharves and Warehouses.

Number of Rats.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in year.
Black	—	—	—	—	—	—	—	—	—	—	—	—	—
Brown	—	—	—	—		—	—		—	—	—		—
Species not recorded	4	—	5	4	11	3	—	4	—	9	99	120	259
Examined	—	—	—	—	—	—	—	—	—	—	7	4	11
Infected with plague	—	—	—	—	—	—	—	—	—	—	—	—	—

Since November, 1937, twopence per carcase has been paid for all rats caught in the Port and Borough.

The total number of rats caught in the Port and Borough during the year was 1,570.

TABLE G.

Measures of rat destruction on Plague "infected" or "suspected" Vessels or Vessels from plague infected ports arriving in the port during the year.

No such vessel arrived in the Port of Ipswich during the year.

TABLE H.

Deratisation Certificates and Deratisation Exemption Certificates issued during the year.

Ipswich is not an "approved" port for this purpose and therefore no certificates were issued.

VI.—HYGIENE OF CREWS' SPACES.

TABLE J.

Classification of Nuisances.

Nationality of Vessel.	No. Inspected during the year.	Defects of original construction.	Structural defects through wear and tear.	Dirt, vermin and other conditions prejudicial to health.
British ...	88	—	4	4
Other Nations...	77	1	4	24

VII.—FOOD INSPECTION.

(1) Action taken under the Public Health (Imported Food) Regulations, 1925, the Public Health (Imported Food) Amendment Regulations, 1933, the Public Health (Imported Milk) Regulations, 1926, and the Public Health (Preservatives, etc., in Food) Regulations, 1925 to 1927 :—

No action was taken under the above-mentioned Regulations, in the Port of Ipswich, during the year.

(2) Shell-fish. Information respecting any shell-fish beds or laying within the jurisdiction of the P.H.A., stating whether they are in the opinion of the Medical Officer liable to pollution. Report of any action, taken under the Public Health (Shell-fish) Regulations, 1934, or the Public Health (Cleansing of Shell-fish) Act, 1932 :—

There are oyster beds or layings within the jurisdiction of the Ipswich P.H.A. No action has been taken during the year under the above-mentioned Regulations and Act.

The oyster beds are not liable to pollution.

The oysters are not retailed, but are sold wholesale to Whitstable buyers, who relay them on their grounds in Kent.

Oysters are derived from Brightlingsea and Whitstable; escallops from Plymouth and Northern France; cockles from the local coast; whelks from local coast and King's Lynn; and winkles from Mersea and Brightlingsea.

(3) Number of Samples of Food examined by :—

(a) Bacteriologist.

(b) Analyst.

No samples of food were examined in the Port of Ipswich during the year.

H. L. Baty,

Chief Port Sanitary Inspector.

County Borough of Ipswich

School Medical Officer's
REPORT

1937.

I.

STAFF OF THE SCHOOL MEDICAL SERVICE.

DECEMBER, 1937.

Medical Staff:

A. M. N. Pringle, M.B., C.M. (Edin.), D.P.H. (Camb.).
Medical Officer of Health and School Medical Officer.
(Retired 17th January, 1938.)

J. W. Hunter, M.B., Ch.B. (Edin.), BH.y., D.P.H. (Durham), M.D. (Edin.).
(Appointed 5th May, 1937.)
Commenced duties as Medical Officer of Health and School Medical Officer, 18th January, 1938.

A. W. Gaye, B.A., M.B., B.C., D.P.H. (Camb.), M.B., Ch.B. (Manc.).
Deputy Medical Officer of Health and Assistant School Medical Officer.

R. Philpott, M.A., M.R.C.S. (Eng.), L.R.C.P. (London).
Assistant School Medical Officer (Part time).

Dental Staff:

T. A. Edmondson, L.D.S., R.C.S., Eng.
School Dental Surgeon.

A. W. T. Ward, L.D.S., R.C.S., Eng.
Assistant School Dental Surgeon.

R. Cuthill, L.D.S., Univ: L'pool.
Assistant School Dental Surgeon.

Health Visiting Staff:

Miss M. Sandbach, Miss L. Cooke, Miss D. MacIntosh, and part-time service of four of the Health Visitors of the Public Health Staff.

Clerical Staff:

Miss E. Renacre (part-time).
Miss M. Gooderham.
Miss D. Casey.
Miss B. Taylor (part-time).
Miss B. Piggott.
R. B. Brown (part-time).

County Borough of Ipswich.

Public Health Department,
Elm Street,
Ipswich.

May 27th, 1938.

Ladies and Gentlemen,

I have the honour to present the Report on the Medical Inspection of School Children during 1937.

Although my appointment as School Medical Officer did not take effect until the 17th January, 1938, I nevertheless have had an opportunity of becoming acquainted with the School Medical Service during the later part of 1937, and I am very grateful to Dr. A. M. N. Pringle for the manner in which he has collaborated in the change-over.

Dr. Pringle joins me in desiring to render thanks to the members of the Education Committee and Staff for their valuable assistance and co-operation.

Special thanks are also due to those members of the Staff of the School Medical Service who have rendered assistance in the compilation of this Report, and who have been engaged in the work in this branch throughout 1937.

I have the honour to be,
Ladies and Gentlemen,
Your obedient Servant,
J. W. Hunter.

II.

CO-ORDINATION.

The School Medical Officer is also Medical Officer of Health, and therefore no difficulty arises in co-ordinating the work of both Departments.

The completed records of children attaining the age of five years are transferred from the Infant Welfare Centre to the School Clinic, and the information available in such records is a great help in preparing the School Medical Schedules.

At the end of school life any records of interest from the Public Health point of view, i.e., of Tuberculous children, Mental Defectives, etc., are transferred to the appropriate Departments.

In short, it may be said that the closest co-operation exists between all Public Health Agencies and the School Medical Officer.

III.

SCHOOL HYGIENE.

The sanitation of the schools receives the regular attention of the Sanitary Inspectors, whose recommendations are passed through the School Medical Officer to the appropriate authorities.

IV.

MEDICAL INSPECTION.

(a) Medical Staff.

The Routine Inspection includes the usual three groups, viz., Entrants (5 years old), Intermediates (8 years old), and Leavers (12 years old).

The School Medical Officers visit all the schools in the town for this purpose, accompanied by the Health Visitors. Lists of children are taken from the School Registers at the various age groups and a programme of visits is prepared, so that Teachers are warned in good time of the intended visit. Invitations to parents are sent out in every case.

The approved type of schedule is prepared for each child and is carried in a folder throughout school life.

During 1937 the number of children examined at the Routine Medical Inspections was 3,539 or 35.06% of the average attendance.

This figure compares with 2,898 in 1936 and 3,316 in 1935.

(b) Nursing Staff.

Cleanliness Inspections in the Schools by the Health Visitors.

Every school is visited and every child seen as many times a year as the staff permits, and the total number of examinations in 1937 was 35,552. The average number of visits per school was 6.41. Appropriate action is taken in all cases of Pediculosis, and such cases are followed up until the desired end is attained.

The Health Visitors also visit schools when the prevalence of infectious diseases indicates the advisability of such a course, and their services in this connection are extremely valuable.

(c) Inspection Clinics.

The main Inspection School Clinic is situated in the Public Health Department, Elm Street. This Clinic is open every day and a Medical Officer is in attendance every morning session, and also on some afternoons for special purposes, i.e., examination of Mental Defectives, Children with Defective Vision, etc.

The Branch School Clinic, in Clapgate Lane, to serve the new Housing Estates, was opened on April 16th, 1936, and has proved of great benefit to parents living in the district it serves. The Clinic is open every day, a School Medical Officer attends on morning sessions, whilst visits are paid on certain afternoons for special purposes.

Cases are referred to both clinics by various authorities, teachers, parents and others, and the Inspection Clinics act as "clearing houses" in this respect. Children requiring treatment are referred to the family Doctor, the local Hospital or Treatment Clinic, the Tuberculosis Clinic, the Sunlight Clinic, and so on.

A large number of the referred children are found to be unfit for school, and exclusions are granted for varying reasons and periods.

The following table illustrates the extent to which the School Clinics have been used since inception :—

Period.	Numbers of Children attending at Clinic.	Total Attendances at Clinic.	Exclusions.	
			Granted.	Not Granted.
Average 1912-1915	—	4,568	1,004	—
1916-1920	1,850	6,611	1,525	325
1921-1925	2,846	10,726	1,930	910
1926-1930	4,193	13,189	2,520	1,673
1931	4,668	12.148	2 239	2 429
1932	4,888	14,229	2 299	2 589
1933	4 756	13,308	2,035	2,721
1934	4,755	12 074	1,898	2,857
1935	4,817	13,043	1,779	3,038
1936	5,343	19,108	2,276	3,067
1937	7.176	28,245	2,257	4,919

The above figures include those of the Main Clinic and the Branch Clinic.

The figures for the Branch Clinic are as follows :—

Period	Numbers of Children attending at Clinic.	Total Attendances at Clinic.	Exclusions.	
			Granted.	Not Granted.
8 months, 1936	1,590	4,108	489	1,101
1937	3,330	11,682	803	2,527

These tables indicate, in the most convincing manner, the need for these clinics, and the extent of their appreciation by the public.

V.

FINDINGS OF MEDICAL INSPECTION.

PRELIMINARY.

Routine Medical Examinations of Children in the three age groups (5, 8 and 12 years), together with number of defects found at such examinations :—

	1936.			1937.		
	Boys.	Girls	Total.	Boys.	Girls.	Total.
Entrants—						
No examined ...	721	643	1364	607	543	1150
No. of defects ...	73	49	122	45	19	64
Percentage ...	10.1	7.6	8.9	7.4	3.5	5.5
Intermediates—						
No. examined ...	488	634	1122	657	510	1167
No of defects ...	72	78	150	102	54	156
Percentage ...	14.7	12.3	13.4	15.5	10.6	13.4
Leavers—						
No. examined ...	64	348	412	608	614	1222
No of defects ...	4	45	49	66	77	143
Percentage ...	6.2	12.9	11.9	10.8	12.5	11.7
Total—						
No examined ...	1273	1625	2898	1872	1667	3539
No of defects ...	149	172	321	213	150	363
Percentage ...	11.7	10.5	11.1	11.4	9.0	10.2

NUTRITION.

Table II.B. shows 3.539 examinations in Elementary Schools and gives the numbers and percentage of those falling into the four groups as required by the Board, namely:—Excellent, Normal, Slightly Sub-normal, Bad.

Below are Tables comparing these figures.

	1936				1937			
	Excellent	Normal	Slightly subnormal	Bad	Excellent	Normal	Slightly subnormal	Bad
Entrants	9.45%	74.04%	16.05%	.44%	9.13%	84.35%	6.43%	.09%
Inters.	12.65%	70.41%	16.6%	.26%	10.89%	77.8%	11.22%	.09%
Leavers	12.62%	71.11%	16.26%	—	15.55%	76.68%	7.77%	—

Normal, or better.		
	1936	1937
Entrants	83%	93%
Intermediates ...	83%	89%
Leavers	83%	92%

(*b*) UNCLEANLINESS.

A Table giving particulars of the work carried out in this section together with the numbers found unclean is appended:—

	1936.	1937.
No. of visits by Health Visitors to Schools ...	165	186
Average per school	5.9	6.41
No. of examinations	42,443	35,552
No. of children found unclean	606	553
Percentage of total examined found unclean ...	1.42	1.55

15 "24-hours" notices were served.

In no case was it necessary to take legal proceedings, but 6 children were cleansed by the Authority.

126 children were excluded from school for verminous conditions, involving a loss of 889 school days.

(c) MINOR AILMENTS AND DISEASES OF THE SKIN.

These complaints include Ringworm, Scabies, Impetigo, etc.

The following Table gives the numbers found at routine and special inspections during the past three years :—

	1935.	1936.	1937.
Ringworm :—			
Scalp	10	8	12
Body	6	9	—
Scabies ...	31	23	33
Impetigo	203	155	178

The number of children excluded in these three groups was 161, and the days lost 3,958.

(d) VISUAL DEFECTS AND EXTERNAL EYE DISEASES.

Table II. of the Statistical Tables indicates that 219 children were found during the year at Routine or Special Inspections to be suffering from defective vision, whilst another 25 were found to squint and 264 had other eye disorders.

Special Eye Clinics are held each week, and during the year 472 children were examined, the total visits being 808.

The number of glasses prescribed or to be changed was 335, and of that number 319 have been obtained to date.

The Education Committee's Scheme which provides glasses, either free of cost or on part payment in certain cases, materially assisted in the attainment of this high percentage.

The defects found were :—

Hypermetropia	83
Hypermetropic Astigmatism ...	36
Myopia	88
Myopic Astigmatism	15
Mixed Astigmatism	3
Squint	10
Corneal Opacities	1
All Others	11

5 children with defective vision were referred to the Eye Specialist at the local Hospital.

(*e*) Nose and Throat Defects.

The number of children found to require treatment (excluding other conditions usually of a temporary and minor character only) was 130, which was made up as follows :—

Chronic Tonsillitis only ...	56
Adenoids only	24
Chronic Tonsillitis and Adenoids	50

In addition 345 children were marked for observation under this heading.

(*f*) Ear Disease and Defective Hearing.

Table II. indicates that the following were referred for treatment during 1937 :—

Defective Hearing	13
Otitis Media	75
Other Ear Diseases	111

(*g*) Dental Defects.

The Report of the School Dental Surgeon is given under the section "Arrangements for Treatment."

797 children were directly referred to the dentist as the result of medical inspection.

(*h*) Orthopaedic and Postural Defects.

47 children were found during the year to require treatment. Of the 47 cases 24 were postural and 23 other orthopædic cases. In addition, 27 were still under treatment from the previous year and 24 were referred for further treatment.

(*i*) Heart Disease and Rheumatism.

The following cases of Heart Disease were discovered at Routine Medical Inspection or at the School Clinic during the year :—

Organic ... 9 for treatment, 6 for observation.
Functional ... – ,, ,, 14 ,, ,,

4 of the Organic Heart Disease cases were known to be rheumatic in origin and 3 congenital.

(*j*) Tuberculosis.

The number of cases falling into this group during 1937 is given as under :—

Pulmonary Tuberculosis ...	4
Non-pulmonary ,, ...	4
Suspected ,, ...	11

These cases are effectively covered by the existing scheme.

(*k*) OTHER DEFECTS AND DISEASES.

The figures were slightly above those of the previous year.

VI.

FOLLOWING UP.

Following up defects found at previous Medical Inspections is carried out by the School Medical Staff and Health Visitors.

The number of children seen during 1937 was 920, and the examinations totalled 1,010. These examinations are carried out at school at the same time as Routine Medical Inspection.

The Health Visitors also followed up absences from school reported by Head Teachers.

In special cases the Health Visitors also visit the child at school and (or) in the home.

VII.

ARRANGEMENTS FOR TREATMENT.

The Local Authority undertakes at the School Treatment Clinics or by arrangement with other Authorities, treatment as under :—

(a) Minor ailments at the Main and Branch Clinics.

(b) Dental defects at the Dental Clinics.

(c) Visual defects at the Eye Clinic.

(d) Artificial Sunlight treatment at the Public Health Department.

(e) Surgical treatment of Tonsils and Adenoids at the East Suffolk and Ipswich Hospital.

(f) X-Ray treatment of Ringworm at the same Institution.

(g) Tuberculous or suspected Tuberculous children at Sanatorium or Hospital.

(*a*) MINOR AILMENTS TREATMENT CLINIC.

This Clinic has been established for many years and deals with all types of minor ailments.

The undermentioned Table gives the numbers of children treated and the diseases or defects dealt with.

Disease or Defect.	Main.			Branch.	
	1935	1936	1937	1936	1937
Number of children treated ...	849	717	989	689	1,663
Total visits paid	4,171	4,468	7,331	3,361	7,062
Ringworm—Scalp	1	4	4	1	—
Skin	1	1	1	2	1
Scabies	31	18	27	5	1
Impetigo	40	27	58	56	63
Other Skin Diseases ..	192	100	74	153	330
Minor Eye Defects	109	72	82	47	141
Minor Ear Defects	41	45	50	34	115
Nose and Throat Defects ...	11	—	—	17	—
Minor Injuries	283	314	453	273	663
Miscellaneous	140	136	240	101	349
Total	849	717	989	689	1,663

The Authority has an arrangement with the local General Hospital for the X-Ray Treatment of Ringworm at a cost of £2 2s. 0d. per case, treated to a successful conclusion.

Last year 7 cases were referred, as compared with 2 in 1936.

Cases of Scabies receive special baths (chiefly sulphur) at the Cleansing Station attached to the Public Health Department. 424 baths were given to children during the year, and the clothing was disinfected at the same time.

Minor Eye Defects included children with Blepharitis, Conjunctivitis, Keratitis and Corneal Ulcers.

Minor Injuries.—All children injured in schools or playgrounds are referred first of all to the Treatment Clinic, and if the injury is severe the patient is referred at once to the local Hospital.

(*b*) DENTAL DEFECTS.

The following is the report of Mr. T. A. Edmondson, the Senior School Dental Surgeon.

REPORT OF THE WORK OF THE SCHOOL DENTAL DEPARTMENT FOR THE YEAR 1937.

During the year 27 elementary and the Northgate schools were visited, the number of departments being 37, viz., infants 6, girls 7, boys 8, mixed 4, and junior 12.

All the children in the schools served by the Branch Clinic have been inspected and those accepting treatment have been treated.

The following Table gives details of ages of the children inspected :—

TABLE A.

Ages.	1937			1936		
	Main Clinic.	Branch Clinic.	Total.	Main Clinic.	Branch Clinic.	Total.
5 years	637	285	922	490	327	817
6 ,, ...	647	362	1,009	511	279	790
7 ,, ...	689	386	1,075	558	366	924
8 ,, ...	749	369	1,118	617	333	950
9 ,, ...	752	346	1,098	712	282	994
10 ,, ...	791	382	1,173	782	247	1,029
11 ,, ...	936	320	1,256	836	350	1,186
12 ,, ...	777	286	1,063	1,012	229	1,241
13 ,, ...	712	232	944	1,096	248	1,344
14 ,, ...	314	14	328	396	44	440
15 ,, and over ...	266	—	266	283	—	283
Total inspected ...	7,270	2,982	10,252	7,293	2,705	9,998
First inspections ...	1,241	347	1,588	969	378	1,347
Re-inspections ...	6,029	2,635	8,664	6,324	2,327	8,651

Of the total number inspected 1,687 or 15.21 per cent. had every tooth perfectly sound, whilst 2,991 or 28.25 per cent. had mouths containing 7.731 septic deciduous teeth, an average of 2.58 each.

At the branch clinic 365 or 12.24 per cent. had every tooth perfectly sound. This is an improvement of 9.73 per cent. over last year. 773 children or 25.92 per cent. had mouths containing 1,962 septic deciduous teeth, an average of 2.53 each. The percentage of children having septic deciduous teeth is less than last year by 10.49.

The following table gives comparative figures :—

TABLE B.

	1937		1936	
	Total Children inspected (including Branch)	Branch only.	Total Children inspected (including Branch).	Branch only.
Percentage of children having septic teeth	28.25	25.92	27.51	36.41
Average number of septic teeth per child	2.58	2.53	2.40	2.24
Percentage with all sound teeth ...	15.21	12.24	12.78	2.51

Of the total number inspected only 4,707 or 47.58 per cent. had all the permanent teeth present in the mouth perfectly sound, whilst 3,862 or 36.97 per cent. had decayed permanent teeth which were savable.

So far as the branch clinic is concerned 1,536 or 51.54 per cent. had all the permanent teeth present in the mouth perfectly sound, whilst 1,053 or 35.31 per cent. had decayed permanent teeth which were savable.

The following comparative Table gives the necessary details :—

TABLE C.

	1937		1936	
Number of Permanent teeth decayed but savable.	Total children inspected (including Branch).	Branch only.	Total children inspected (including Branch)	Branch only.
1	1,665	497	1,734	503
2	1,366	340	1,337	324
3	517	138	473	97
4	245	57	283	57
5	45	12	47	10
6	18	6	22	6
7	3	1	8	—
8	2	1	4	—
9	1	1	1	—
10	—	—	1	—
11 and 12	—	—	—	—
Over 12	—	—	—	—
Total number of Children with decayed permanent teeth savable	3,862	1,053	3,910	997
Total number of decayed permanent teeth savable	7,307	1,939	7,433	1,756
Percentage of children examined	36.97	35.31	39.12	36.89

7,506 permanent teeth filled in previous years were found to be artificially sound.

Table D. gives details regarding children selected for treatment :—

TABLE D.

	1937		1936	
	Total Children inspected (including Branch).	Branch only.	Total Children inspected (including Branch)	Branch only.
Children inspected ...	10,252	2,982	9,998	2,705
Selected for treatment ...	6,856	2,075	6,171	1,770
Percentage selected ...	67.67	69.58	61.72	65.43
Extractions only	33.17	28.95	35.12	40.79
Conservative treatment only	45.22	50.62	42.07	34.02
Conservative treatment and extractions	20.97	20.14	21.39	22.37
Dressings only	.64	.29	1.42	2.82

During the year 6,839 letters (including 2,075 from the Branch Clinic) were sent to parents inviting consents to treatment; 6,219 letters (including 1,894 relating to the Branch Clinic) were returned, of which 60.67 per cent. were consents (Branch 57.97) and 39.33 per cent. refusals (Branch 42.03).

The following Table indicates the variation in the percentage of consents to treatment :—

TABLE E.

Year.	Selected for treatment (including Branch)	Branch only.	Percentage of consents (including Branch.	Branch only.
1936	6,171	1,770	60.43	63.22
1937	6,856	2,075	60.67	57.97

In previous years it has been the practice to send all dental letters to school whence they have been carried to parents by the children. This year they have all been posted direct to parents in the hope that more consents would be gained thereby. At the same time we notify the Head of the school, enclosing a list of names of children selected for treatment and making this request : "In cases of 'Refusals' I should be grateful if you would kindly use your persuasive influence to obtain 'Consents' and in cases where letters are not returned you may possibly discover the reason. Thanking you for your co-operation in this matter."

It is generally accepted that every school child should be dentally inspected at least once a year. Sir Norman Bennett, the eminent authority on School Dentistry, says that dental inspection should take place every six months.

Unfortunately, owing to increasing time spent on conservative treatment and extension of dental treatment for the Maternity, Child Welfare and the Tuberculosis departments, we find it is actually taking us 14 months to complete our circuit of all the schools. Moreover, after September 1st, 1939, the number to be inspected and treated will be considerably increased by the addition of the new age group 14 to 15 years. This matter demands serious consideration.

In spite of our constant propagandist efforts there are many people who still imagine that a dental clinic exists only for the relief of toothache. It is sheer waste of time to inspect the mouths of children whose parents year after year write "No" on the dental letters. The same children visit the clinic only when in pain.

The majority of "refusals" are for the filling of savable permanent teeth which, when neglected, become unsavable, causing toothache and often swollen faces, for the relief of which they attend the clinic at any time without appointment, hindering our routine work. Their treatment consists of the extraction of one or more permanent teeth under Nitrous Oxide and Oxygen, with the result that the balance of occlusion is lost, some of the remaining teeth, being left without opponents, become useless and thus more prone to decay. Thus the child, being unable to masticate thoroughly, is well on the way to malnutrition and digestive disorders.

About his work at the Branch Clinic, Mr. Cuthill writes :—

"A comparison of consents to treatment for the two years 1936 and 1937 reveals the following :—

	1936.	1937.
Gainsborough Junior Mixed ...	63.83	50.00
Priory Heath Junior Mixed ...	65.75	58.49
Greenwich Junior Mixed ...	60.00	61.94
Eastern Senior Girls' ...	47.29	55.46
South Eastern Senior Boys' ...	63.49	53.60
Nacton Road Junior Mixed ...	76.49	79.50
Orwell Junior Mixed ...	—	51.73

It will be noticed that there is a decrease in the number of consents to treatment in some of the Junior schools in the area, this is due to the fact that during the year parents have been invited to accept conservative treatment for certain decayed deciduous teeth instead of waiting until these teeth become septic when the only possible treatment is extraction. The widespread use of the term "temporary teeth" is unfortunate. It gives the impression that these teeth are unimportant, whereas the opposite is the truth.

A beautiful face, as distinct from a merely pretty one, nearly always reflects good health. A beautiful face has well developed, regular features, including well developed jaws. Jaws do not develop properly unless they have the pressure of the requisite number of teeth in them. Early extraction of the deciduous teeth causes an underdevelopment of the jaws with consequent overcrowding and irregularity of the permanent teeth. The preservation of the deciduous teeth until the ages at which they are to be shed naturally is important both from the point of view of health and beauty.

It will be seen from the tables that it has been possible to repair quite a number of these decayed teeth, and it is hoped that with more consents for conservative treatment the number of septic deciduous teeth will decrease still further in number at subsequent inspections.

Last year's low figure for consents (47.29%) at the Eastern Senior Girls' School has increased to 55.46% this year. More time than usual was occupied by the inspection this year, inasmuch that every girl was spoken to individually about her dental condition. Unfortunately this produced no better result. The increase in the number of consents was brought about by the Headmistress using her influence with the girls to get many of them to consent after having returned the letter marked with a refusal. This is a concrete example of the powerful influence exercised over the minds of children by their school masters and mistresses. We are grateful to those who use their influence in persuading children to accept treatment.

62.9% of the total number of refusals were for conservative treatment and 37.1% per cent. for extractions. As approximately the same number of "filling" and "extraction" letters were sent out it will be seen that the unwillingness of parents to accept conservative treatment is responsible for the majority of the refusals. When the above figure of 37.1% is further analysed, it reveals the fact that 295 children in the schools in the area have very septic mouths for which the parents refuse to have any treatment.

Table F. indicates the number of teeth extracted and the number of fillings :—

TABLE F.

		1937		1936	
		Total Children (including Branch).	Branch only.	Total Children (including Branch).	Branch only.
Children treated ...		5,140	1,291	4,719	1,033
Teeth Extracted	Deciduous	6,355	1,459	5,612	1,408
	Permanent	1,161	239	1,093	197
	Total ...	7,516	1,698	6,705	1,605
Number of Fillings	In Deciduous teeth	676	425	120	59
	In Permanent teeth	3,762	685	4,128	591
	Total ...	4,438	1,168	4,248	650

The manner in which children submit to dental treatment is on the whole remarkably good. In this connection it is interesting to note that scholarship children are the most difficult to treat and mental defectives are as a rule very well behaved.

Although it is not suggested that discomfort attached to some dental operations is entirely imaginary, it appears that the more active the child's imagination the more apprehensive does it become.

The number of broken appointments remains high. Illness of the children or parents accounts for a good number of them. Very few parents consider it necessary to notify the Clinic of their intention to break an appointment. This is to be regretted, because if we were notified in time we should be able to fill the vacant time by some other appointment.

Experience has shown that a fine Monday morning with a good drying wind is responsible for many broken appointments!''

SUMMARY OF WORK DONE DURING 1937.

The following are tabulated details of work done during the year:—

	Total (including Branch).	Branch only.
Number of schools visited	27	7
,, ,, visits to schools	95	27
,, ,, departments visited	37	7
,, ,, half days devoted to inspection and talks to mothers	109	28
,, ,, mouths examined at dental inspection	9,467	2,982
,, ,, letters sent	6,839	2,075
Actual number of children treated	5,140	1,291
Number of attendances made	7,458	1,833
,, ,, appointments arranged	8,193	2,089
,, ,, appointments broken	1,616	438
,, ,, amalgam fillings in deciduous teeth	63	22
,, ,, amalgam and cement fillings in deciduous teeth	13	—
,, ,, cement fillings in deciduous teeth	600	403
,, ,, amalgam fillings in permanent teeth	2,167	548
,, ,, amalgam and cement fillings in permanent teeth	1,205	75
,, ,, cement fillings in permanent teeth	367	52
,, ,, root canal treatments	23	8
Total number of fillings	4,438	1,108
Number of permanent teeth filled	3,355	617
,, ,, deciduous teeth extracted	6,355	1,459
,, ,, permanent teeth extracted	1,161	239
,, ,, local anæsthetic cases	365	99
,, ,, nitrous oxide and oxygen administrations	3,147	760
,, ,, sundry dressings in deciduous teeth	273	119

	Total (including Branch).	Branch only.
Number of sundry dressings in permanent teeth ...	2,769	475
" " children for whom advice was sought ...	534	93
" " children brought to clinic who then refused treatment	71	13
" " children treated who had been treated in former years	2,788	673
" " half days devoted to treatment ...	1,110	195
" " employment cases treated	46	2
" " artificial crowns fitted	2	1
" " regulation plates fitted	21	4
" " dentures fitted	9	—

The Radiologist at the East Suffolk Hospital kindly took 2 X-Rays on our behalf during 1937.

Compared with the year 1936, we note an increase of 190 more fillings, 168 more nitrous oxide administrations, 811 more teeth extracted, 12 more regulation appliances, and 8 more dentures fitted.

I beg to draw special attention to the dental condition of children at the Whitton Open Air School.

At the last inspection, out of 109 children inspected, 75 were selected for treatment as follows:—

(a) For fillings, 49.
(b) For both fillings and extractions, 16.
(c) For extractions only, 10.

Only 32 per cent. consented to treatment. In my opinion every candidate for this special school ought to be dentally fit before admission.

Facilities are available in the dental department for parents to contribute, and £130 1s. 3d. was collected in the department last year.

T. A. EDMONDSON,
School Dental Surgeon.

(*c*) VISUAL DEFECTS.

Dealt with in earlier part of the Report.

(*d*) ARTIFICIAL SUNLIGHT.

An Artificial Sunlight Clinic has been established in the Public Health Department for some years, and deals with children of all ages.

During the year under review, the number of children of school age who received treatment was 102 and they paid 1,642 visits.

The defects for which treatment was given included :—

Anæmia and Debility	24
Catarrhal and Bronchial Infections	10
Enlarged Glands (neck) ...	6
Sub-normal Nutrition	1
Tuberculosis Group	5
Pre-Tubercular Debility ...	12
Pityriasis	1
Convalescence after Infectious Diseases	2
Other Defects	4

(*e*) Surgical Treatment of Tonsils and Adenoids.

The Education Committee has had, for some years, a working arrangement with the local General Hospital for the surgical treatment of Tonsils and Adenoids.

In cases where an operation is considered necessary, the parent is given a letter to present to the Ear, Nose and Throat Specialist at the local Hospital. The note is returned to the School Medical Officer with the Surgeon's recommendations, and if an operation is considered to be necessary, arrangements are made by the Hospital Authorities to carry out such recommendation.

The Education Committee pays the Hospital 3/6 for each visit for examination or advice in all cases where the parent is not a member of the Hospital "Contributor's Scheme."

The Hospital Authorities have provided special accommodation for this type of case, and all children under this Scheme are dealt with as in-patients.

The agreed figure, including operation, is 6/- per day under 10 and 8/- per day over that age, in the case of Non-Contributors only. The total cost to the Committee under this heading in 1937 was £46 19s. 6d.

The following Table gives figures for the last three years :—

		1935.	1936.	1937.
Number of Children referred to Hospital ...		116	130	165
Total attendances (out-patients)		110	107	178
Operations carried out		94	72	107
In-patient days	Over 10	158	78	111
	Under 10	474	320	601

(*f*) X-Ray Treatment of Ringworm.

See "Minor Ailments."

(g) TUBERCULOSIS OR SUSPECTED TUBERCULOSIS.

The number of school children who were admitted to Institutions during 1937 for the treatment of Tuberculosis or Suspected Tuberculosis is shown below :—

INSTITUTION	Boys.	Girls.	Total.
Ipswich Sanatorium	20	14	34
East Suffolk & Ipswich Hospital (for treatment of Surgical Tuberculosis)	7	6	13
Ipswich Isolation Hospital—			
(a) Pulmonary Tuberculosis ...	—	1	1
(b) Surgical Tuberculosis	6	4	10
TOTAL	33	25	58

The number of children sent to institutions in this connection during 1936 was 82.

VIII.

INFECTIOUS DISEASES.

The close co-operation of the Public Health and School Medical Departments ensures a very complete scheme for detecting and preventing the spread of Infectious Diseases amongst the School Population.

The home of every patient notified as suffering from an Infectious Disease is visited by an Officer of the Public Health Department, who records on a sheet the names of all persons residing therein.

The school children in such a house are excluded from Day and Sunday Schools (Diphtheria 10 days, Scarlet Fever 8 days, if the patient is removed to the Isolation Hospital), and notice is sent to the Education Office to that effect. The Education Office notifies the Head Teachers.

Furthermore, in the case of Diphtheria, swabbing is recommended, and parents may arrange this with the family doctor or with the Health Department.

During 1937 the notifications of Infectious Disease of children of school age and removals to Hospital were as under :—

	Notified.	Removed.
Scarlet Fever ...	140	135
Diphtheria	9	9

Another arrangement which helps considerably is the notification by Head Teachers of absences from school. These cards are passed as soon as received to the Health Visitors, who visit the homes and advise parents.

In cases of minor Infectious Diseases (the non-notifiable group) exclusions are granted as necessary, and leaflets of instruction and advice are left with parents in all cases where a doctor has not been called in.

The exclusions granted by Health Visitors in the minor Infectious Disease group included the following :—

Measles	30
Chicken Pox	367
Whooping Cough	67

In addition the Health Visitors excluded children for the under-mentioned reasons :—

Mumps	165
Tonsillitis, etc.	48
Impetigo, Sores	5
Other Infectious Diseases ...	—
Minor Injuries	—
Other Ailments	223

No school or portion of a school was closed during the year on account of the prevalence of Infectious Diseases. School Medical Officers or Nurses visit any schools in which an abnormal number of cases has occurred, and such visit is sometimes accompanied by the swabbing of a class or the close inspection of each scholar as to nasal discharge, etc., etc.

During the year 2 certificates were given that the attendance of a Department had fallen below 60 per cent. owing to the prevalence of epidemic illness.

IX.

OPEN-AIR EDUCATION.

The Certified Open-Air School (Whitton) is dealt with under the section "Blind, Deaf, Defective and Epileptic Children."

(*a*) PLAYGROUND CLASSES.

Four open-air classrooms on four playfields were used during the year.

(*b*) OPEN-AIR CLASSROOMS IN PUBLIC ELEMENTARY SCHOOLS.

In the recently built schools it is possible to throw open one or more sides of the classrooms.

(*c*) SCHOOL JOURNEYS AND CAMPS.

No school journeys or camps.

X.

PHYSICAL TRAINING.

The Report of Mr. W. Tye, the Organiser of Physical Training, is appended :—

IPSWICH EDUCATION COMMITTEE.
PHYSICAL TRAINING REPORT, 1937.

GENERAL.

This year has been one of marked progress in most of the schools, largely due to additional inside accommodation, improved playgrounds for outside activities, and the provision of physical training clothing for the reorganised senior schools. The Government "Keep-Fit" campaign also has done much to stimulate the schools to take full advantage of the excellent facility provided by the Committee.

TIME TABLES.

The schools' time tables now make adequate arrangements for a daily period of some form of physical activity, either physical exercises, games or dancing. Where inside accommodation is now provided, the children can have daily exercise throughout the year, irrespective of the weather.

PHYSICAL TRAINING DRESS.

The importance of suitable clothing and footgear while taking exercise has been constantly emphasised at the schools during recent months. As a result there has been a noticeable improvement, particularly where the head teacher is specially keen on physical education. Open days, when demonstrations in physical training by properly dressed children have been arranged, have helped in drawing the attention of the parents to this matter.

The organisers and head teachers concerned are grateful to the Committee for providing adequate physical training clothing for the senior schools. Already there is evidence of a higher standard of work there, and much more keenness and enjoyment amongst the children.

TEACHERS' CLASSES.

As it is necessary to maintain keenness and freshness in the teaching of physical exercises, the teachers' classes continue to be an important part of the organisers' work. Two such classes for women and one for men have been held this year.

The two women's classes, one for senior school teachers, and the other for "Keep-Fit" leaders, were both very well attended and useful. Those who attended the latter class have proved very useful in taking demonstrations and classes in and round about the Borough.

The men's class was conducted by Mr. J. B. Williams, B.A., of Ipswich School, and was formed to give the more promising men teachers an opportunity of becoming acquainted with the use of a fully equipped gymnasium. The men who attended regularly and took an active part certainly benefited from the instruction, as is shewn in their improved teaching in the schools.

On the whole the Ipswich teachers are to be congratulated on their keenness in attending physical training classes over a long period of years. This has been very encouraging to the organisers, who naturally appreciate meeting the teachers after school hours to discuss with them the difficulties and problems under their peculiar and varied circumstances.

APPARATUS.

The apparatus, which has been generously supplied by the Committee, is in very good use in the schools. Most of the senior schools are now using portable gymnastic apparatus, which helps to make the lessons more interesting and satisfying to older children. The South Eastern Senior Boys' C. School is particularly fortunate in having a fully equipped gymnasium, complete with shower baths. The junior and infants' schools also are well supplied with small apparatus, making for bright and vigorous lessons, attractive to young children.

SWIMMING.

Swimming instruction for the schools was arranged during the summer term at four of the Borough swimming baths. The opening of the new pool at Piper's Vale has proved a great boon to children in that area, the closer proximity of the bath has saved valuable school time and has resulted in a considerable increase in the number of learners.

Altogether 98 classes were formed for learners, and six for life saving. The total number under instruction was 2,316—of these 111 attended special life-saving classes. It is interesting to note that the number of girls wishing for instruction is now not far behind that of the boys.

It is better, where it is possible, that classes should be taken by the school teachers. During this season more classes were instructed by women teachers, who are becoming keenly interested in this branch of instruction.

The instruction generally is proceeding on sounder lines than formerly; more teachers are adopting the class method as against that of individual instruction. They have derived much benefit from the circular on swimming sent out by the organiser.

The results for the season were as follows :—

	No. under instruction.	25 yds. cert.	45 yds. cert.	Life saving.	Total.
Boys	1,306	263	150	52	465
Girls	1,010	174	173	36	383
			Total	...	848

A life-saving class for teachers was arranged in conjunction with the local Schools' Sports Association during the summer; Mr. G. L. Thorpe took the class, and six teachers passed the tests, five taking the Bronze Medallion and one the Intermediate Certificate.

DEMONSTRATIONS.

The organisers latterly have devoted much more time to demonstrations of physical training in connection with the teachers' classes and the annual schools athletic sports.

The purpose of the teachers' classes demonstrations has been to shew a possible and suitable standard of work with children of various ages, collected from different schools. These demonstrations have served a very useful purpose, emphasising, as they do, the importance of suitable dress, planned and vigorous teaching, and live and happy response from the children.

This year the organisers were again asked to stage a massed display during the athletic sports. The "human cartwheel" of over 800 children was an unqualified success and shewed to the public the great strides made in physical training in the elementary schools. Without the generous help from the Committee, and the co-operation and keen assistance from the head and assistant teachers, this display would have been impossible.

PLAYFIELDS.

There is little necessity to report on the schools' keen appreciation of the Committee's unique and generous provision of playfields. Sites for games have now been acquired throughout the Borough, approximately on the basis of ten acres to every thousand children using the playfields. These sites have been, or are being, laid out, planned and equipped for games; convenient and adequate shelters, lavatories, classrooms, etc., are being provided where necessary, so that children can visit the fields and play games under ideal conditions. The fields have been carefully planned, so that children can play games suitable for them according to their varying ages. On the whole, the schools make good use of the fields throughout the year. In addition to the usual summer and winter games, the fields are used for schools' athletic sports and hockey tournaments.

(Signed) W. TYE,
Organiser of Physical Training.

XI.

PROVISION OF MEALS.

(*a*) MEALS.

Children are supplied with breakfasts, dinners and morning milk free of cost, provided they are necessitous within the meaning of the Education Act. During the year 38 children were supplied with meals. All applications are submitted to the School Medical Officer for his recommendations.

It is much to be regretted that parents do not more fully avail themselves of the facilities offered for the provision of meals for their children.

(*b*) Milk in Schools.

Every school has a school milk supply, and the one-third pint of milk for ½d. is an extremely valuable adjunct to the dietary of the growing child.

The numbers increased during the year, as the undermentioned figures indicate :—

Date.	Parents Paying.	Milk paid for by Education Committee.	Milk paid for by Public Assistance Committee.	Total
January	3,183	927	452	4,562
February	3,772	936	472	5,180
March	3,834	960	458	5,252
April	4,021	977	368	5,366
May	3,943	975	397	5,315
June	3,656	990	389	5,035
July	3,594	994	399	4,987
September	4,640	938	398	5,976
October	4,680	938	416	6,034
November	4 624	942	429	5,995
Average	3,995	957	418	5,371

Samples of milk are taken from each contractor from time to time and submitted to the County Laboratory.

XII.

CO-OPERATION OF PARENTS, TEACHERS, SCHOOL ATTENDANCE OFFICERS AND VOLUNTARY BODIES.

(*a*) Parents.

Parents are invited by printed notice to attend at the school when their children are to undergo Routine Medical Inspection, but it is not usual for them to be present at Following Up Examinations.

The number of parents attending the Routine examinations was 2,962 or 84% of the total children examined.

Many also accompany their children to the School Clinic.

Parents are invited from time to time to attend at the schools for lectures by the School Dental Surgeons, and advantage is taken at that time to point out dental defects.

The attendance and co-operation of the parents facilitates all branches of inspection and treatment.

(*b*) TEACHERS.

Without the active co-operation of Teachers, the School Medical Service would function imperfectly, and the thanks of the School Medical and Dental Staffs are due to all members of the Teaching profession who have, during the past year, and in some cases for many years, done everything possible to assist the service.

School Attendance Officers are always willing to assist, and valuable help has also been afforded by the Voluntary Association for Mental Welfare and the National Society for the Prevention of Cruelty to Children.

XIII.

BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

(*a*) BLIND.

Table III. (Statistical Tables) gives particulars with regard to the Blind and Partially Blind children.

It will be seen that the Education Committee is responsible for the maintenance of five children at Certified Schools for the Blind.

(*b*) DEAF.

If the same Table is referred to, it will be seen that 10 Ipswich children are at Certified Schools for the Deaf.

(*c*) MENTALLY DEFECTIVE.

45 children were examined under this heading during 1937 and in addition 6 cases were re-examined.

The results of the examinations were as follows :—

Classified as —	Males	Females.	Total
Feeble Minded M D ..	17	5	22
Imbeciles	2	3	5
Idiots	1	—	1
Total Certified	20	8	28

Of the remainder 15 were "Dull and Backward," 2 "Backward," 2 educationally retarded, and 4 of average intelligence.

Of this number 1 "Feeble Minded" and 1 "Backward" were examined for admission to Institutions, and 1 educationally retarded boy was examined for admission to an Approved School.

This by no means represents the ascertainable figure, as there are 58 children on the list for examination and 6 for re-examination.

The following Table compares the figures of 1937 with those of previous years :—

Year.	CLASSIFICATION.														
	Feeble-Minded.			Imbeciles			Idiots.			Dull and Backward.			Total.		
	M.	F.	T	M.	F.	T	M.	F	T	M	F.	T.	M.	F.	T.
Average															
1921-1925	18	11	29	2	4	6	—	—	—	20	12	32	40	27	67
1926-1930	10	10	20	4	3	7	—	—	—	13	14	27	27	27	54
1931-1935	9	8	17	1	2	3	1	—	1	9	5	14	20	15	35
1932	8	6	14	—	1	1	2	1	3	14	5	19	24	13	37
1933	5	7	12	1	2	3	1	—	1	2	5	7	9	14	23
1934	9	4	13	—	4	4	—	1	1	11	8	19	20	17	37
1935	6	3	9	1	—	1	1	—	1	4	2	6	12	5	17
1936	17	10	27	1	1	2	—	—	—	4	8	12	22	19	41
1937	17	5	22	2	3	5	1	—	1	9	6	15	29	14	43

Ipswich has a Special School for this type of child at Britannia Road, and the register shows the following figures :—

	Boys	Girls.	Total.
On Register December, 1936, ...	42	22	64
Admitted during the year ...	14	5	19
Left during the year	13	5	18
Remaining on Register December, 1937.	43	22	65

I append a report from Dr. A. W. Gaye upon the Britannia Road Special School :—

BRITANNIA ROAD SPECIAL SCHOOL.

The number in attendance at the end of the year was 65, two-thirds of whom were boys.

In addition there are 11 other children requiring special education, 2 of whom are at private, and 9 at the ordinary elementary schools.

The average mental age of the children is seven-and-a-half with an average chronological age of twelve years five months. This shows a higher mental age by six months compared with the previous year, while the average percentage remains the same.

A. W. GAYE,
Deputy School Medical Officer.

(d) PHYSICALLY DEFECTIVE.

This group includes Tuberculosis, Delicate and Crippled children and children with Heart Disease, and figures with regard to them will be found upon reference to Table III.

Ipswich possesses its own Sanatorium and beds can usually be found for children requiring them.

Arrangements are also in force with the local Hospital for any orthopædic work which may be necessary.

The Education Committee also has its own Open Air School at Whitton, a suburb of Ipswich.

The Whitton Open Air School Register gives the following figures :

	Boys	Girls.	Total.
On Register December, 1936 ...	55	53	108
Admitted during the year ...	32	24	56
Left during the year	29	29	58
Remaining December, 1937 ...	58	48	106

A report by Dr. A. W. Gaye upon the Whitton Open Air School is appended :—

WHITTON OPEN AIR SCHOOL.

There were 108 children in attendance at the school at the beginning of the year and 106 at the end.

The following Table shows how the school has been used.

	Boys	Girls	Total
In attendance during the year	85	77	162
Discharged	32	33	65
Admitted	32	24	56

10 children were admitted and discharged in the same year.

The discrepancy in number of discharges is accounted for by the fact that children to take the place of the remaining seven were admitted in January of the following year.

The following Table gives a classification of the 162 by diagnosis.

Diagnosis	Discharged	Remaining	Total
General Delicacy	31	50	81
Chest Disease	14	21	35
Heart Disease	4	8	12
Anaemia	3	—	3
Subnormal Nutrition ...	3	12	15
Enlarged Glands	4	1	5
Miscellaneous	6	5	11
Total	65	97	162

This Table shows that the majority of the children making use of the school are "generally delicate" or have "chest trouble," such as Bronchitis, or have come out of the Sanatorium with quiescent disease.

Many of them might become potential candidates for the Sanatorium if they were not put under open-air conditions.

The above classification is, of course, arbitrary, as many of the children could well be put in more than one category, but no individual child appears more than once in the Table.

The longest stay at the school among those discharged is five years. The average period (for the discharges) is shown as follows:—

Diagnosis	Number	Average period of stay
General Delicacy ...	31	$1\frac{3}{12}$ to $1\frac{6}{12}$
Chest Disease ...	14	$1\frac{6}{12}$ to $1\frac{9}{12}$
Heart Disease ...	4	$2\frac{3}{12}$
Anaemia	3	$2\frac{8}{12}$
Subnormal Nutrition ...	3	$1\frac{8}{12}$
Enlarged Glands ... (including 2 cases, Tub. glands).	4	$2\frac{9}{12}$
Miscellaneous	6	$1\frac{11}{12}$
Total	65	

The average attendance was 85.8%, being rather better among the boys.

Each child has half-a-pint of milk daily and dinner at the school.

Cod liver oil and malt was also given to 50 of the children during the colder months.

Sports were held and much enjoyed by both participants and visitors. It was so arranged that every child was able to take part in at least one event.

The fresh air, controlled exercise, rest, good food and the friendly interest of the staff all contribute to the continued success of the school.

A. W. GAYE,
Deputy School Medical Officer.

(e) SUPERVISION OF MENTALLY DEFECTIVE CHILDREN NOT IN SPECIAL SCHOOL.

This is performed on behalf of the Education Committee by the Local Branch of the Mental Welfare Association.

AFTER CARE.

During 1937 after care for school leavers was provided by the Ipswich Mental Welfare Association.

12 children leaving the school during the year have been kept under supervision. Of the 4 girls, 2 are in work, 1 in a certified Institution, and 1 attending the Occupation Centre pending admission to an Institution.

Of the 8 boys, 6 are in work, 1 has been admitted to the Royal Eastern Counties' Institution, and 1 was in work for a time, but is now unemployed.

XIV.

FULL-TIME COURSES OF HIGHER EDUCATION FOR BLIND, DEAF, DEFECTIVE AND EPILEPTIC STUDENTS.

(a) The Education Committee arrange for the training of these students at Residential Institutions. Each case is considered on its merits after considering the report of the School Medical Officer, any recommendations made by the Ipswich Blind Society in the case of adults and, where a child is already in an Institution, the report of the Principal of the Institution.

The number of trainees at Residential Institutions during the year under review was—blind 3, cripple 2, epileptic 2.

(b) No courses are maintained by the Authority.

(c) The training of one blind person was completed during the year, and he will be employed by the Ipswich Blind Society when the new workshops are opened in 1938.

XV.

NURSERY SCHOOLS.

There is no Nursery School in Ipswich.

XVI.

SECONDARY SCHOOLS AND OTHER INSTITUTIONS OF HIGHER EDUCATION.

The School Medical Service is concerned with the following Schools:—

Ipswich School.
High School for Girls
Northgate Schools.

Aided Higher School for Boys.
" " " Girls.
Provided Secondary Schools for Boys and Girls.

(1) MEDICAL INSPECTION.

Routine Medical Inspections are carried out at the Ipswich and Northgate Schools and the following Table gives the number of children examined :—

School	Examined.	No. of Defects Found.*	No. of Following up or Re-examinations.
Ipswich School	54	18	92
Northgate Boys	221	26	88
Northgate Girls	140	39	127
Total	415	83	307

*Excluding Dental Defects and Malnutrition.

In addition 74 boys were examined as to fitness for sports.

The defects found, excluding Dental, can be classified as follows :—

Defect.	Ipswich School.		Northgate Boys.		Northgate Girls.	
	Treatment.	Observation.	Treatment.	Observation.	Treatment.	Observation.
Malnutrition (see special Table below)	—	—	—	—	—	—
Other Diseases, Skin (Non. T.B.) ...	—	—	—	10	—	7
EYES—						
Blepharitis	—	—	—	—	—	—
Defective Vision	4	—	15	7	12	2
Squint	—	—	—	—	—	—
Other Conditions	—	—	1	—	—	—
EARS—						
Defective Hearing	—	—	1	—	1	—
Other Diseases	—	—	—	—	—	—
NOSE AND THROAT—						
Enlarged Tonsils	—	—	1	6	1	27
Adenoids	—	—	—	1	1	1
Tonsils and Adenoids ...	—	—	—	1	—	—
Other Conditions	—	—	—	3	1	—
GLANDS—	—					
Enlarged Cervical	—	1	—	7	—	8
SPEECH—						
Defective	—	1	—	—	—	—
HEART CIRCULATION—						
Functional	—	—	—	1	—	1
Anaemia	—	—	—	—	2	6
LUNGS—						
Other Non. T.B. Disease ...	—	1	2	1	—	1
TUBERCULOSIS—						
Suspected T.B. Lungs ...	—	—	—	—	1	—
NERVOUS SYSTEM—						
Other Conditions	—	—	—	—	—	1
DEFORMITIES—						
Spinal Curvature	2	—	—	—	2	—
Other Forms	12	4	5	5	18	33
OTHER DEFECTS	—	2	1	5	—	7
TOTAL ...	18	9	26	47	39	94

(2) NUTRITION.

The following Table gives the results of examinations of the R.M.I. groups so far as nutrition is concerned :—

	Ipswich School		Northgate Boys.		Northgate Girls.	
	No.	%	No.	%	No.	%
Excellent	3	5.6	32	14.9	25	17 9
Normal	47	87 0	178	80.5	88	62 8
Slightly Sub-Normal	2	3 7	11	4.6	27	19.3
Bad	2	3 7	—	—	—	—

R.M.I. and Special Inspections are not carried out at the High School for Girls.

(3) FOLLOWING UP AND MEDICAL TREATMENT.

The figures as to "following up" examinations have been given in a foregoing Table.

Free Treatment is afforded by the Committee for Special Place holders and for minor ailments in the case of fee-paying pupils.

XVII.

PARENTS' PAYMENTS.

The Education Committee has fixed the undermentioned charges for the treatment of school children :—

Tonsils and Adenoids, operative treatment, 5/- (including operation and subsequent treatment).

Provision of Spectacles and other medical appliances : Cost price.

Dental : 6d. for the first attendance, with a maximum charge of 1/- should further attendance be necessary to complete the treatment required.

Minor Ailments : Free.

The scale of charges refer to Public Elementary School Children only. The fees are paid at the School Clinic generally at the same time as treatment is carried out.

So far as fee-paying pupils at Secondary Schools are concerned, the above scale applies, except as under :—

Tonsils and Adenoids, operative treatment, 17/- (including operation and subsequent treatment).

Dental : 2/- per attendance.

The amount collected for the last financial year 1936-7 was £122 1s. 3d.

XVIII.

HEALTH EDUCATION.

No "Health Week" was held during 1937 as the Ipswich Town Council collaborated with the Ministry of Health in the national campaign during the period from October, 1937, to March, 1938.

One of the sections dealt with concerned the school medical services, and the attention of the public was invited by means of a display of suitable posters and the distribution of leaflets.

"BETTER HEALTH."

The Public Health Committee deals with 5,000 copies of this useful publication each month, and every school teacher in the town receives a copy. In addition, 50, 100 or 200 copies are forwarded to each school according to size, for distribution amongst scholars.

XIX.

SPECIAL INQUIRIES.

No special inquiries were carried out during 1937.

XX.

MISCELLANEOUS.

(*a*) EMPLOYMENT OF SCHOOL CHILDREN.

Total number of medical examinations during 1937 was 268.

*Number passed on first examination	...	170
,, passed on re-examination	...	54
,, re-examined	..	34
,, withdrawn on re-examination	...	8
,, refused	...	2
Total ...	...	268

A decrease of 19 (6.62%) on the previous year.

* 1 Street Trader is included in this figure.

(*b*) STAMMERERS.

The report of the Speech Therapist, Miss S. D. Miller, is appended :—

REPORT ON THE CLASSES FOR STAMMERERS AND SPEECH DEFECTIVES, 1937.

During 1937 the following schools were centres for the stammering and speech defect classes :—

Bramford Road Infants' C. School.
St. Helen's Infants' C. School.
London Road Junior Mixed C. School.
Ranelagh Road Junior Mixed C. School.
Priory Heath Junior Mixed C. School.
Greenwich Junior Mixed C. School.
Clifford Road Boys' C. School.
Central Senior Boys' C. School.

Owing to the lack of space at London Road, Ranelagh Road was adopted as the new centre for that district in April, and proved equally convenient for those children concerned. A new centre was started at Greenwich School in January.

During the course of the year, the various centres were attended by 72 children, of whom 26 were new cases.

Of the 24 stammerers :—

18 continue in attendance.
1 reached school-leaving age.
1 left the district.
1 was discharged as having benefited as far as possible.
3 were discharged as being satisfactorily readjusted.

Of the 48 speech defectives :—

23 continue in attendance.
1 was transferred to Britannia Road Special School.
3 cleft palate cases were discharged as having benefited as far as possible.
1 delayed speech case was discharged as having benefited as far as possible.
20 were discharged as cured.

CLASSIFICATION OF SPEECH DEFECTIVES.

Organic Defects :—	No. of cases.
Cleft palate	2
Cleft palate and defective hearing	1
Cleft palate and mental deficiency ... ... (This case is receiving individual treatment at Britannia Road Special School.)	1
Lisping due to faulty dentition	2
Functional Defects :—	
Lalling	15
Lisping due to lack of muscular control ...	4
Lisping and phonasthenia	3
Lalling and lisping	9
Defective articulation and retarded ...	4
Defective articulation and sub-normal mentality	1
Aphonia and sub-normal mentality	1
Delayed speech	5

The permanent success of special treatment depending as it does so largely on school and home environments, the value of the willing co-operation shewn by teachers and parents concerned is fully realised and appreciated.

(Signed) S. D. Miller,
Speech Therapist.

(c) Public Elementary Schools and School Population.

The following Table gives the number of Public Elementary Schools and the approximate number of Elementary School Children :—

	1935.	1936.	1937
Number of Public Elementary Schools ...	26	29	29
Average number on School Registers ...	11,621	11,538	11,416
Average attendance of children at School	10,580	10,479	10,093

TABLE I.

MEDICAL INSPECTIONS OF CHILDREN ATTENDING PUBLIC ELEMENTARY SCHOOLS.

A.—ROUTINE MEDICAL INSPECTIONS.

Number of Inspections in the prescribed Groups :—

Entrants	1,150
Second Age Group	1,167
Third Age Group	1,222
Total	3,539
Number of other Routine Inspections ...	—
Grand Total	3,539

B.—OTHER INSPECTIONS.

Number of Special Inspections	8,231
Number of Re-Inspections	13,551
Total	21,782

C.—CHILDREN FOUND TO REQUIRE TREATMENT.

Number of individual children found at Routine Medical Inspection to require Treatment (excluding Defects of Nutrition, Uncleanliness and Dental Diseases).

Group. (1)	For defective vision (excluding squint). (2)	For all other conditions recorded in Table II. A (3)	Total. (4)
Entrants	10	37	47
Second Age Group ...	66	71	135
Third Age Group ...	66	54	113
Total (Prescribed Groups)	142	162	295
Other Routine Inspections	—	—	—
Grand Total ...	142	162	295

TABLE II.

A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1937.

Defect or Disease.		ROUTINE INSPECTIONS.		SPECIAL INSPECTIONS.	
		No. of Defects.		No. of Defects	
		Requiring Treatment.	Requiring to be kept under observation, but not requiring treatment.	Requiring Treatment.	Requiring to be kept under observation, but not requiring treatment.
(1)		(2)	(3)	(4)	(5)
Skin	Ringworm—Scalp ...	—	—	12	—
	Body ...	—	—	—	—
	Scabies	1	—	32	—
	Impetigo	2	5	171	—
	Other Diseases (Non-Tuberculous)	7	33	697	7
Eye	Blepharitis	—	3	42	—
	Conjunctivitis	1	4	98	—
	Keratitis	1	—	1	—
	Corneal Opacities ...	—	—	1	—
	Other Conditions (excluding Defective Vision and Squint)	1	7	119	13
	Defective Vision (excluding Squint)	142	105	77	7
	Squint	6	10	19	1
Ear	Defective Hearing ...	3	11	10	1
	Otitis Media	2	4	73	—
	Other Ear Diseases ...	1	4	110	4
Nose and Throat	Chronic Tonsillitis only	20	245	36	63
	Adenoids only	5	23	19	6
	Chronic Tonsillitis and Adenoids	15	5	35	3
	Other Conditions ...	6	23	235	5
Enlarged	Cervical Glands (Non-Tuberculous)	—	127	72	27
Defective	Speech	3	16	16	3
Heart and Circulation	Heart Disease—Organic ...	4	4	5	2
	Functional	—	14	—	—
	Anæmia	1	6	7	—
Lungs	Bronchitis	6	56	44	4
	Other Non-Tuberculous Diseases	5	92	2	3

TABLE II.—Continued.

Tuberculosis	Pulmonary—Definite ...	1	—	3	—
	Suspected ...	5	6	6	13
	Non-Pulmonary—				
	Glands	—	—	3	—
	Bones and Joints ...	1	1	—	—
	Skin	—	—	—	—
	Other Forms	—	1	—	—
Nervous System	Epilepsy	—	2	—	—
	Chorea	—	—	3	—
	Other Conditions ...	—	8	7	6
Deformities	Rickets	2	5	1	—
	Spinal Curvature ...	13	21	9	1
	Other Forms	20	60	11	—
Other Defects and Diseases (excluding Defects of Nutrition, Uncleanliness and Dental Diseases)		79	300	2,724	19
Total Number of Defects ...		353	1,201	4,700	188

B.—CLASSIFICATION OF THE NUTRITION OF CHILDREN INSPECTED DURING THE YEAR IN THE ROUTINE AGE GROUPS.

Age-groups.	Number of Children Inspected.	A (Excellent)		B (Normal)		C (Slightly subnormal)		D (Bad)	
		No.	%	No.	%	No.	%	No.	%
Entrants ...	1150	105	9.13	970	84.35	74	6.43	1	.09
Second Age-group	1167	127	10.89	908	77.8	131	11.22	1	.09
Third Age-group	1222	190	15.55	937	76.68	95	7.77	—	—
Other Routine Inspections ...	—	—	—	—	—	—	—	—	—
Total ...	3539	422	11.92	2815	79.54	300	8.48	2	.06

TABLE III.

RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

BLIND CHILDREN.

At Certified Schools for the Blind.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
2	—	—	2	4

PARTIALLY SIGHTED CHILDREN.

At Certified Schools for the Blind.	At Certified Schools for the Partially Sighted	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
1	—	4	2	—	7

DEAF CHILDREN.

At Certified Schools for the Deaf.	At Public Elementary Schools.	At other Institutions.	At no School or Institution	Total.
12	—	—	—	12

PARTIALLY DEAF CHILDREN.

At Certified Schools for the Deaf.	At Certified Schools for the Partially Deaf.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
1	—	8	—	—	9

TABLE III.—Continued.

MENTALLY DEFECTIVE CHILDREN.

FEEBLE-MINDED CHILDREN.

At Certified Schools for Mentally Defective Children.	At Public Elementary Schools.	At other Institutions.	At no School or Institution	Total
67	9	—	13	89

EPILEPTIC CHILDREN.

CHILDREN SUFFERING FROM SEVERE EPILEPSY.

At Certified Special Schools	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
—	—	—	—	—

PHYSICALLY DEFECTIVE CHILDREN.

A. TUBERCULOUS CHILDREN.

1.—CHILDREN SUFFERING FROM PULMONARY TUBERCULOSIS.

(Including pleura and intra-thoracic glands.)

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution	Total.
9	—	—	4	13

2.—CHILDREN SUFFERING FROM NON-PULMONARY TUBERCULOSIS.

At Certified Special Schools	At Public Elementary Schools	At other Institutions.	At no School or Institution	Total.
6	7	—	—	13

TABLE III.—Continued.

B. DELICATE CHILDREN.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
104	451	—	—	555

C. CRIPPLED CHILDREN.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
4	13	1	2	20

D. CHILDREN WITH HEART DISEASE.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
8	30	1	—	39

CHILDREN SUFFERING FROM MULTIPLE DEFECTS.

Combination of Defect.	At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total
Feeble Minded and Orthopaedic Defect	1	—	—	—	1
Feeble Minded and Heart Disease	1	—	—	—	1
Feeble Minded and Cripple ...	2	—	—	—	2
Feeble Minded and Deaf and Dumb	1	—	—	—	1
Total	5	—	—	—	5

TABLE IV.

TREATMENT TABLES.

Group I.—Minor Ailments (excluding Uncleanliness, for which see Table VI.).

Disease or Defect. (1)	Number of Defects Treated, or Under Treatment During the Year.		
	Under the Authority's Scheme. (2)	Otherwise (3)	Total. (4)
Skin—			
Ringworm-scalp. (1) X-Ray Treatment. If none, indicate by dash	7	1	8
(2) Other	4	—	4
Ringworm, body	1	—	1
Scabies	31	2	33
Impetigo	121	52	173
Other skin disease	404	300	704
Minor Eye Defects— (External and other, but excluding cases falling in Group II). ...	223	41	264
Minor Ear Defects	165	34	199
Miscellaneous— (e.g. minor injuries, bruises, sores, chilblains, etc.)	1,704	714	2,418
Total	2,660	1,144	3,804

Group II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I.).

Defect or Disease	Number of Defects dealt with.			No. of children for whom spectacles were			
				Prescribed. (1)		Obtained (2)	
	Under the Authority's Scheme.	Otherwise.	Total	(i) Under the Authority's Scheme	(ii) Otherwise.	(i) Under the Authority's Scheme	(ii) Otherwise.
Errors of Refraction (including Squint) (Operations for Squint should be recorded separately in the body of the Report) ... Other Defect or Disease of the Eyes (excluding those recorded in Group I).	472	5	477	335	5	316	5
TOTAL ...	472	5	477	340		321	

Group III.—Treatment of Defects of Nose and Throat.

NUMBER OF DEFECTS.														
Received Operative Treatment.														
Under the Authority's Scheme, in Clinic or Hospital. (1)				By Private Practitioner or Hospital, apart from the Authority's Scheme. (2)				Total. (3)				Received other forms of Treatment. (4)	Total number Treated. (5)
(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)		
1	4	103	2	—	—	—	—	1	4	103	2	19	129

(i) Tonsils only. (ii) Adenoids only. (iii) Tonsils and Adenoids.
(iv) Other defects of the nose and throat.

Group IV.—Orthopaedic and Postural Defects.

	Under the Authority's Scheme (1)			Otherwise. (2)			Total number treated.
	Residential treatment with educution. (i)	Residential treatment without education. (ii)	Non-residential treatment at an orthopaedic clinic. (iii)	Residential treatment with education. (i)	Residential treatment without education. (ii)	Non-residential treatment at an orthopaedic clinic. (iii)	
Number of children treated	1	—	71	—	—	2	74

Table V.—Dental Inspection and Treatment.

(1) Number of children inspected by the Dentist :—

(*a*) Routine age-groups :—

Age	Number		
5	922	Total	9,467
6	1,009		
7	1,075		
8	1,118		
9	1,098		
10	1,159		
11	1,164		
12	913		
13	812		
14	197		

(*b*) Specials	1,679
(*c*) Total (Routine and Specials)	11,146
(2) Number found to require treatment	8,069
(3) Number actually treated	4,767
(4) Attendances made by children for treatment	6,804

(5) Half-days devoted to :—

Inspection	95	Total	1,205
Treatment	1,110		

(6) Fillings :—

Permanent Teeth	3,145	Total	3,818
Temporary Teeth	673		

(7) Extractions :—

Permanent Teeth	1,089	Total	7,383
Temporary Teeth	6,294		

(8) Administrations of general anæsthetics for extractions	3,070

(9) Other Operations :—

Permanent Teeth	1,717	Total	1,990
Temporary Teeth	273		

Table VI.—UNCLEANLINESS AND VERMINOUS CONDITIONS.

(i.)	Average number of visits per school made during the year by the School Nurses	6.41
(ii.)	Total number of examinations of children in the Schools by School Nurses	35,552
(iii.)	Number of *individual* children found unclean	553
(iv.)	Number of *individual* children cleansed under Section 87 (2) and (3) of the Education Act, 1921	6
(v.)	Number of cases in which legal proceedings were taken :—	
	(a) Under the Education Act, 1921	nil.
	(b) Under School Attendance Byelaws	nil.

A. M. N. PRINGLE,

School Medical Officer.